A

TREATISE

ON

PASTURAGE.

IN TWO PARTS.

I.—On the History thereof, and Advantages ariſing therefrom.

II.—On the Practice of it, or Method of Managing *Sheep-farms*.

With obſervations on the *Woolen Manufacture*.

TO WHICH IS ADDED,

An Essay on the general Oeconomy and management of *Black Cattle Farms*, under a breeding ſtock, and methods of curing and preventing diſeaſes to which ſuch Cattle are ſubject, including the management of the *dairy*.

AS ALSO

A Short Essay on the *Incloſures* proper and expedient, on farms under a breeding ſtock, and the beſt and quickeſt method of executing them.

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PREFACE.

IT is no leſs true than it is remarkable, that, although numberleſs Treatiſes have been written on Agriculture, Planting, and other uſeful arts, yet nothing of this kind has been written in this kingdom on the art of Paſturage: Any thing that has been ſaid on it being brought in only in detached parts in Treatiſes on Agriculture, or by way of digreſſion, without entering minutely into the ſubject. This is, indeed, partly the manner in which it is treated by Virgil; for, after his *Paſtorals*, in which he ſays ſome handſome things in favour of the art, his firſt Georgic treats of *Agriculture*, the ſecond of *Planting*, the third of *Horſes*, *Black Cattle*, and *Sheep* and *Goats*, and the fourth of *Bees*. It is but juſtice, however, to this much admired

Claſſic to obſerve, that each ſubject he treats of is formed into a regular ſyſtem by itſelf, adapted to the time and place he lived in, which is more than can be ſaid of any other author who has treated of theſe ſubjects: At the ſame time, the difference of the place and climate, and a variety of other cauſes, render Virgil's ſyſtem of Paſturage perfectly inapplicable to this kingdom.—*Monſ. de Fenelon* ſeems not to have thought the art unworthy of notice, in his *Political Epic Poem of Telemachus*. The paſtoral ſcene in the ſecond book is a moſt beautiful piece of compoſition. In the deſcription of the happy country of Betica, he again takes occaſion to deſcribe the happineſs and ſimplicity of the paſtoral life; and, in the reformation which Mentor makes in the new kingdom of Idomeneus, he engages the inhabitants in *Paſturage*, and *Manufactories* of things neceſſary *. From the plan of the *Encyclopædia Britan-*

* See Appendix, No. I.

Britannica, it might have been expected, that the compilers of it would have given alſo a Syſtem of Paſturage, particularly as they had ſaid ſo much on Agriculture, which they had treated by itſelf: But theſe gentlemen ſeem to have had as great an averſion at Paſturage, as the compilers of the *Encyclopædie Françoiſe* had at revealed religion; for they have neither conſidered it as an art nor a ſcience, though *Agriculture*, and even *Horſemanſhip* and *Farriery*, are treated of ſyſtematically. They have indeed ſaid nothing on the ſubject of *Sheep*, except in a ſhort explanation of the word *Ovis*, and have not only ranked them as leſs uſeful than *Goats*, but inferior in many reſpects to the *Aſs*. This is the more remarkable, for they are laviſh in praiſe of *Paſtorals*, in ſpeaking of which, they have ſaid: "The original of poetry is aſcribed to that age which ſucceeded the "creation of the world; and, *as the keeping of flocks ſeems to have been the firſt*

" *employment of mankind*, the moſt ancient " ſort of poetry was probably *paſtoral*. It " is natural to imagine, that the leiſure of " thoſe ancient ſhepherds admitting and " inviting ſome diverſion, none was ſo " proper to that ſolitary and ſedentary life " as ſinging, and that in theſe ſongs *they* " *took occaſion to celebrate their own felicity.* " From hence a poem was invented, and " afterwards improved to an image of that " happy time, which, by giving us an " eſteem for the virtues of a former age, " might recommend them to the preſent." Taking this for granted, that *the keeping of flocks* (whereof ſheep muſt have been a great part) *was the firſt employment of mankind in that age which ſucceeded the creation of the world*, and that the writers of the *Encyclopædia*, like all other writers, write for *immortality*; this, ſuppoſing them to be ſucceſsful, muſt carry them forward to the *millennium*; and if peradventure the inhabitants of the world, at that happy period, ſhould

ſhould be employed, as the firſt men were, in paſturing flocks, how will it look, that there is nothing ſaid on *Paſturage* in this book, containing all the knowledge of the world? What will the *Millenarians* think of the omiſſion of their beloved art? Whether Agriculture and Planting, by partaking more of art than nature, have been more readily treated according to art, and Paſturage, appearing ſo ſimple, obvious, and natural, has been on that account overlooked by the ſons of art, I cannot pretend to determine: But the fact, that it has been ſo little treated of, and treated in the manner above mentioned, is indiſputable. It may be true, that, in many farms, the knowledge both of Agriculture and Paſturage is neceſſary; in ſome a greater proportion of the one, and in ſome of the other: At the ſame time, they are diſtinct branches of buſineſs, and, of courſe, fall moſt properly to be diſcuſſed in diſtinct treatiſes. Scarcely any perſon, I think, will

will be hardy enough to maintain, that the art of Paſturage is too inconſiderable to deſerve being treated as an art by itſelf. It is not here meant to enter into any invidious compariſon between the utility of the arts of Paſturage and Agriculture, or to ſay that attention to Paſturage and Manufactures is preferable to attention to the Fiſheries. The beneficent Creator of the univerſe has diſpoſed matters ſo that they may be all attended to without derogation one to another, by happily varying this part of the kingdom into arable ground for grain, low grounds and meadows for food to horſes and black cattle, mountains for ſheep and goats, and ſea-coaſts for Fiſheries. By proper application to all theſe, the greateſt profit poſſible muſt ariſe: And, as to the Fiſheries, it will be ſhown in the concluſion, that, in ſome places of the kingdom, attention to Paſturage will promote them very conſiderably. Matters ſo ſtanding, the utility of a Treatiſe on

Paſturage

Paſturage will appear obvious; and there remains one cauſe of rejoicing in common with the Latin Poet, the not being obliged to follow a beaten tract:

" *Caetera, quae vacuas tenuiſſent carmina mentes*
" *Omnia jam volgata.*"———
" ——— *tentanda via eſt, qua me quoque poſſum*
" *Tollere humo, victorque virum volitare per ora.*"
" ——— *Juvat ire jugis, qua nulla priorum*
" *Caſtaliam molli divertitur orbita clivo.*"

VIRGIL. Georg. 3.

" All other themes that careleſs minds invite
" Are worn with uſe unworthy me to write."

" New ways I muſt attempt my grovelling name
" To raiſe aloft, and wing my flight to fame."

" And pleas'd I am no beaten road to take,
" But firſt the way to new diſcoveries make."

DRYDEN.

CON-

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INTRODUCTION.

THE novelty of a ſubject, though a difficulty in treating of it, may be, in ſome reſpects, conſidered as an advantage. Objects quite common make little or no impreſſion. If a ſubject has nothing to recommend it, beſides its novelty, it will not long pleaſe: But if to this is added invention, utility, or truth, the pleaſure ariſing from the conſideration of it will be laſting. It is not ſo incompatible with truth as may be imagined. A perſon, eager in purſuit of truth, and any way tolerably qualified for finding it, from the various views people have of matters, is in no danger of anticipating or being anticipated. Novelty, connected with invention, utility, or the diſcovery of truth, ſeems to be nearly the ſame as originality; and

and it has been generally allowed that originality, either in the ſubject, or the method of a treatiſe, is that for which it is almoſt alone to be valued.

One reaſon occurs why an art is ſometimes late in becoming the ſubject of literary diſcuſſion, and of courſe confined to one ſet of men. It is imagined all thoſe who practiſe it perfectly know it, which is frequently not the caſe; for in fact they ſeldom go farther back than they have ſeen practiſed, however erroneouſly, or reaſon from practice to principles, and are too much involved in the minute parts of practice to think of the hiſtory or philoſophy of it. Others conſider themſelves as having no intereſt to think of any art but their own, not conſidering how much every art and ſcience depends upon others. To apply this to paſturage, (or paſturing flocks) the clergyman will, from a knowledge of this art, be able more clearly to illuſtrate, and his hearers to comprehend, many references

ces in the ſacred writings to the paſtoral life. The lawyer will be more fully informed, in queſtions among country people, as to leaſes, tranſmiſſions of ſtocks thereon, identification of property therein, when ſtolen, ſtrayed, or violently carried away, and as to diſputed marches; the phyſician may try experiments, and conſider the analogy of diſeaſes, and their cures on the human race and animal creation; the naturaliſt and philoſopher will find new properties in animals, and more full information as to the nature and extent of inſtinct, and difference betwixt it and reaſon. Almoſt every farm affords ſomething for the reſearches of the antiquarian, or which may give additional information to the hiſtorian. The general orator ought to be inſtructed in every art *. Thus every perſon may find ſomething of advantage in it.

To

* *Debet Orator omnibus diſciplinis et artibus eſſe inſtructus.*

To give ſome idea of the plan on which this work is to be conducted, it is intended,

1. To treat of the hiſtory of the art from the earlieſt ages, and in different countries; with the philoſophy thereof; and advantages that might ariſe therefrom.

2. Of the moſt approved practice.

Before entering upon which, it will not be improper to deſcribe the animal principally treated of, according to Natural Hiſtory. *Ovis* then is, in Zoology, a *genus* of the *mammalia* claſs of the order of *pecora*; the characteriſtics of which are, the horns concave, turned backwards, twiſted and full of wrinkles, eight fore-teeth in the under jaw, and no dog-teeth. The ſpecies three: 1. *Aries*, or common ram and ſheep, the horns of which are ſhaped like a half-moon, and compreſſed. This ſpecies is of the utmoſt utility to man, as, beſides its fleſh and its milk, it produces yearly that valuable ſubſtance known by the name

of

of wool, ſo neceſſary to our manufactures. 2. The *Guineenſis*, or Guinea ſheep, with pendulous ears, lax hairy dew laps, and a prominence on the hind part of the head, the wool ſhort like that of a goat. 3. The *Strepſicheros*, or Cretan ſheep, with ſtrait carinated horns, twiſted in a ſpiral manner, a native of Mount Iola.

TREATISE, &c.

PART I.

On the Hiſtory of the Art of Paſturage, from the earlieſt Ages; with the Advantages ariſing therefrom.

CHAP. I.

Of the Antiquity of the Art of Paſturage, and Origin, Lawfulneſs, and Reaſonableneſs of the Uſe of Animal Food.

THE art of Paſturage is equal, if not ſuperior, in point of antiquity, to any other of the uſeful arts *. If we had

* Thoſe firſt arts which men learned immediately, and probably from their Creator, were agri-

no certain information to the contrary, we might be led to conclude that man was originally in a ſavage ſtate, and little different from a beaſt of prey; that from a propenſity of hoarding what he had no immediate occaſion for, he might be induced, among other things, to keep live ſtock, till his wants gave him occaſion to devour it. This might be ſupported by many concluſions drawn from obſervations on the nature of man, and theſe held forth as the moſt undiſputable evidence. It is eaſy to argue from miſtaken facts. Far different from the truth would be ſuch a concluſion; for from the oracles of truth, in place of differing in little from a beaſt of prey, we find man was created little inferior to the angelic order of beings—Lord of the whole earth—and not the

agriculture, *the Paſtoral Art*, that of cloathing themſelves, and perhaps that of building houſes for their accommodation.

Boſſuet's Univerſal Hiſtory.

the ſavage tyrant of the ſpot he grew on. We are informed by the ſacred hiſtorian, that, at the creation of the world, God ordained man to have 'dominion over the 'cattle, and over all the earth;' and that accordingly he gave the earth to man to 'repleniſh and ſubdue it, and have domi-'nion*.' Whether this gave a right to animal food is a matter of ſome difficulty to determine, the more particularly from what follows after; 'and every herb bear-'ing ſeed, which is upon the face of all 'the earth, and every tree in which is the 'fruit of a tree yielding ſeed to him, it

 'ſhould

* Geneſis, chap. i. v. 26. & 28.; and Pſalm, viii. v. 6. & 7. 'Thou madeſt him to have do-'minion over the works of thy hands; thou haſt 'put all things under his feet; all ſheep and 'oxen, yea, and the beaſts of the field.'

'———— Over beaſt, fiſh, fowl,
'Dominion abſolute; that right we hold
'By his donation.'————

Milton's Paradiſe Loſt, b. xii. l. 67. &c.

'ſhould be for meat *.' It ſeems abundantly clear, in caſe of any ſpecies of animals having become too numerous, and having occaſioned a diſturbance of the general peace, or riſen up againſt mankind, that they might have killed and deſtroyed them; for the power to *ſubdue* and exerciſe *dominion* muſt have carried right to ſuppreſs and puniſh rebellion, and to preſerve good order. How far it gave a right to kill harmleſs and inoffenſive animals, as ſheep or goats, does not ſeem evident; if indeed rams at certain ſeaſons could be conſidered as falling under that deſcription, and of which there muſt have been greater numbers than in proportion to what was neceſſary for the flocks, as the practice of caſtrating them in lambs, or when older, was not introduced for ſome thouſands of years afterwards, and ſheep are propagated nearly in equal numbers of

* Geneſis, c. i. v. 29.

of both ſexes. Whether animal food was uſed before the fall may be probably conſidered as matter of uncertainty. Some think that, after this period, a very great alteration took place among the brute creation, by diſcord ariſing amongſt them *. This might give man occaſion to exerciſe his *dominion* in a greater degree, in cutting off ſuch as created diſturbance. However theſe matters may have been, we find that *Abel*, one of the immediate ſons of *Adam*, was a *keeper* or *feeder of ſheep* †. Whether he would have followed this employment, on account of the milk and wool of the flock only, may be doubted, as there are other animals equally good for the firſt of theſe; and, as to the other, it would be ſome time before men could manufacture the wool into cloth, and of courſe they muſt, for a conſiderable length

* ——— to graze the herb all leaving,
Devoured each other.
Milton's Paradiſe Loſt, b. x. l. 711.

† Geneſis, c. iv. v. 2.

of time, have been ſome other way cloth-ed; and we are expreſsly told that the firſt pair of the human race, ſoon after their tranſgreſſion, were clothed with ſkins *: Theſe, it is ſuppoſed by divines, were the ſkins of victims offered in ſacrifice; and at this time, if not previous hereto, we may date the origin of the uſe of animal food. That, upon the penitence of our firſt parents, ſacrifices were inſtituted, is more than probable; and animal food may, at this period, have been allowed, as a mitigation of their puniſhment, in the *curſe* of the ground, and of man's being obliged to eat *bread* in the ſweat of his brow.

Sacrifices, we know, were of different kinds; in ſome caſes the whole victims were burnt on the altar, and in others only a part of them, and the other parts eaten by the perſons attending or officiating at offering the ſacrifices; both which were

* Geneſis, c. iii. v. 21.

were afterwards uſed among the Iſraelites, by divine appointment, and among the Greeks and other heathen nations, who muſt have derived their cuſtoms concerning ſacrifices, by tradition from Adam *. If it ſhould be conſidered as diſputable that ſacrifices were offered at a period ſo early as above mentioned, certain it is that 'Cain brought the fruit of the ground as 'an offering unto the Lord; and *Abel* 'brought *the firſtlings* of *his flock* †, and of 'the fat thereof, and the Lord had reſpect 'unto

* Exodus, c. xxix. v. 33. 'And they ſhall 'eat thoſe things wherewith the atonement was 'made.'

'The thighs thus ſacrificed, and entrails dreſt,
'Th' aſſiſtants part, transfix and roaſt the reſt;
'Then ſpread the tables, the repaſt prepare,
'Each takes his ſeat, and each receives his ſhare.'
Pope's Homer's Iliad, b. i.

† See alſo firſt Eclogue or Paſtoral of Virgil:
'The tender firſtlings of my woolly breed
'Shall on his holy altar often bleed.'
Dryden's Virgil.

'unto Abel and his offering, but unto 'Cain and his offering he had not re-'ſpect *.' We have no reaſon, however, to think that this was an act of will-worſhip, nor that ſacrifices were of human inſtitution †; and this has not the ſmalleſt appearance of the firſt inſtitution thereof.

Whether animal food was allowed to be eaten before the deluge or not, certain it is, the Antediluvians were in the uſe of eating it, and guilty of great abuſes in the manner of doing it; and that, if mankind had no previous right to uſe animal food, immediately after the deluge it was allowed; for it is ſaid to Noah, 'Every moving 'thing that liveth ſhall be meat for you; 'even as the green herb have I given you 'all things, but fleſh with the blood 'thereof ſhall ye not eat.' Whether this is to be conſidered as an original grant, or the renewal of a former one, does not ſeem

* Geneſis, c. iv. v. 4. 5.

† See Forbes's Thoughts on Religion.

ſeem ſo clear as it may at firſt ſight appear. From the above quoted words, it would ſeem to be an original grant; but from the immediately preceding verſes, which mention that 'God bleſſed Noah 'and his ſons, and ſaid unto them, Be 'fruitful and multiply and repleniſh the 'earth, and the fear of you ſhall be upon 'every beaſt,' &c.* great part of which was ſaid to Adam, and is here repeated to Noah, from whom, as from a ſecond ſtock, the race of man was to ſpring; it will probably be conſidered as a renewal of a former grant. It is particularly to be obſerved, that this grant to Noah was immediately after his offering of ſacrifice, which adds conſiderable weight to the foregoing conjecture, that the original grant was made upon the inſtitution of ſacrifices. The word *have*, indeed, ſtrongly intimates that there muſt have been a previous grant; and

* Geneſis, c. ix. v. 1. 2.

and the laſt clauſe appears to refer to the abuſes thereof.

After this period, we are not at liberty to conſider the uſe of animal food as in any degree ſinful; and, as an honourable teſtimony in favour of the practice, we read in the ſacred records, that when Abram entertained three angels, animal food was a part of the entertainment *. The putting of innocent and harmleſs animals to death in the ſimpleſt and leaſt painful manner will not appear to be ſo much fraught with cruelty as it otherwiſe might, when we conſider it is only to them a momentary ſufferance; that though (as may be afterwards obſerved) they have a very extenſive natural inſtinct, yet they are not poſſeſſed of the reflex ſenſes to diſturb their peace

* 'And he took butter and milk, and *the calf* 'which he had dreſſed, and ſet it before them; 'and he ſtood by them under the tree, and they 'did eat.' Geneſis, c. xviii. v. 8.

peace with the fear of dying *, and that it is to man they owe their preſervation and protection while they live, otherwiſe there would hardly at this day a breed of them have remained, and ſuch as had remained would have picked only a ſcanty ſubſiſtance, and have been liable to ſuch accidents and diſorders, that, as matters ſtand, they are more plentiful, and in a better ſituation, than if they had been left to themſelves. Thus, for inſtance, abſtracting from other caſes where the care of man is abſolutely neceſſary, if a ſtoremaſter does not ſell off a ſufficient quantity of his ſheep for the market, but allows his farm to overſtock itſelf, this will ſoon after cauſe diſeaſes and death, till they have become more diminiſhed in number, than a prudent

* ‘ The lamb thy riot dooms to blood to-day
‘ Had he thy reaſon, would he ſport and play?
‘ Pleas'd to the laſt he crops the flow'ry food,’
&c. Pope's Eſſay on Man.

dent manager would incline to have them in consequence of the sales he had made; and those that remain will also be much worse than if proper sales had taken place.

CHAP.

CHAP. II.

Of Paſturage among the Antients, according to authentic Hiſtory, and the dignity of the Life of a Shepherd.

WE read that, in the Antediluvian world, Seth and his righteous poſterity paſtured flocks. Some authors make mention of ſhepherd Kings in Egypt at a very early period. It is not, however, very eaſy to aſcertain at what particular time theſe Kings reigned: To reconcile accounts it is neceſſary to conſider them as having reigned at two different periods, one very early, and the other conſiderably later; thus we find that, when Abram was

obliged to go into Egypt on account of a famine, he had ſheep and other cattle of the King of Egypt *. The other race of ſhepherd Kings ſeems to have ended in the reign of *Amoſis*, the father of *Sheſack*, *Seſoos*, or *Seſoſtris*, about the time of Saul or David. In ſacred hiſtory, we learn that the Patriarchs were chiefly employed in paſturing flocks, and that cattle conſtituted a great part of their riches, and that Abram was very rich in cattle, in ſilver, and in gold †; 'and Lot alſo which 'went with Abram had *flocks*, and herds, 'and tents ‡.' We likewiſe obſerve, that theſe cattle were not confined to particular farms or places, as the ſtocks thereof, but removed from place to place with their owners: Thus, when Abram and Lot's herdſmen ſtrove, when the land was not able

* Geneſis, c. xii. v. 16.

† Ib. c. xiii. v. 2.

‡ Ib. c. xiii. v. 5.

able to bear their numerous flocks, that they ſeparated and went to different places *, which would appear not to have been formerly occupied by any perſon, and to which by occupancy they acquired right; that Jacob removed the flocks he had earned as his wages from Laban the *Syrian* to his native country, at a conſiderable diſtance in the *land of Canaan* †, and that when he and his ſons went from thence into *Egypt*, they took their cattle along with them ‡. We cannot help obſerving alſo, that they muſt, in thoſe places, have been much more tame than they are in many places in the country at preſent; as on account of the ſcarcity of water in thoſe warm countries, it was neceſſary they ſhould be gathered and brought every day to a certain watering-place, or well, which

 being

* Geneſis, c. xiii. v. 6. &c.

† Ib. c. xxiii. v. 6. &c.

‡ Ib. c. xlvi. v. 34.

being of ineſtimable value, was, except on theſe occaſions, covered with a large ſtone. That the daughters of the Patriarchs were ſhepherdeſſes; and that thoſe who wiſhed to recommend themſelves to their affections aſſiſted them in the moſt laborious part of the buſineſs, by removing the ſtone from the well's mouth *. By the time, however, that the Iſraelites went down into Egypt, luxury had made ſuch progreſs in that ancient kingdom, that ſhepherds were held as an abomination among the Egyptians †. Moſes, notwithſtanding, who lived a conſiderable time thereafter, though the adopted ſon of Pharoah King of Egypt's daughter, did not diſdain to follow the life of a ſhepherd in the land of Midian ‡; and from this ſcene of retirement and reflection, that firſt and greateſt

* Geneſis, c. xxix. v. 9. 10.

† Ib. c. xlvi. v. 34.

‡ Exodus, c. iii. v. 1. &c.

eſt philoſopher, poet, and lawgiver, and who has been celebrated as ſuch by the wiſeſt and beſt of the heathen writers, was called to lead the Iſraelites out of Egyptian bondage. This manner of life remained, for a long time after, honourable in the land of Canaan, and from it we find David taken to be King *. It ſeems alſo, ſomehow or other, to have been revived in Egypt.

From the accounts tranſmitted to us of the before mentioned perſonages, and from the writings of ſeveral of the ancients, we find that a ſhepherd was a perſon who had flocks of his own, or at leaſt whoſe parents had, which he tended, or directed the tending of; the perſon who did the drudgery of the buſineſs, or attended when this perſon was neceſſarily abſent, was only the herdſman or keeper. This will probably make Arcadian ſcenes, and the deſcriptions of paſtoral life given by the an-

* 1 Samuel, c. xvi. v. 11. 12.

cient poets, appear not quite ſo romantic or fabulous as they otherwiſe might; for the employment of a ſhepherd has been always honourable, except in ages of luxury, or under a military government. In ſupport of the foregoing definition, you will find ſeveral paſſages in *Virgil's Eclogues, or Paſtorals*, which, ſo far as they are purely paſtoral, were written from nature and his own feelings, himſelf having been a ſhepherd.—Thus,

Ite *meae*, felix quondam pecus, ite capellae.

Paſt. I.

Quam dives pecoris nivei, quam lactis abundans,
Mille *meae* errant in montibus ſiculis agnae.

Paſt. II.

De grege non auſim quidquam deponere tecum;
Eſt mihi namque domi pater ———————

Paſt. III.

Tranſlated thus by Mr Dryden:

Farewell *my* paſtures, *my* paternal ſtock—

Paſt. I.

What

What ſtores *my* dairies, and *my* fields contain,
A thouſand lambs that feed upon the plain.
Paſt. II.

You know too well I feed *my father's flock*,
What can I wager from the common ſtock.
Paſt. III.

Modern poets, indeed, not accuſtomed to a country life, or finding few ſhepherds according to the above definition of the word, or inclined more to deſcribe than to define, have confounded ſhepherds, and herdſmen, or keepers, and made them either downright clowns, or elſe creatures of the fancy altogether, like ſylphs and fairies.

On this ſubject of the dignity of the life of a ſhepherd among the ancients, ſee alſo Mr Dryden's Preface to his Tranſlation of Virgil's Eclogues, part whereof is given in the Appendix, No. II.

CHAP.

CHAP. III.

On the Fabulous Hiſtory of Paſturage, and of Shepherds among the Ancients.

ALTHOUGH the account of *Jaſon's* expedition, with the flower of Greece, in the ſhip *Argo*, to obtain the *golden fleece*, reflects conſiderable honour upon the art of paſturage, yet it is too much wrapt up in fable to throw much light on the hiſtory of it; the account of this expedition rather requires hiſtory to throw light upon it. Some, indeed, look upon it to have been a political expedition, and a different cauſe from the real one purpoſely aſſigned.

Apollo

Apollo is ſaid to have once kept the flocks of *Admetus* King of Theſſaly, which *M. de Fenelon* has beautifully deſcribed in the ſecond book of his Telemachus *, and on which the *Burletta* of *Midas* is founded.

We are likewiſe told that all the heathen deities had been invited to the nuptials of *Peleus* King of Theſſaly, and *Thetis*, one of their own number, except *Até*, the goddeſs of Diſcord, who, in revenge, threw a golden apple among them, with this inſcription, TO THE FAIREST. *Juno*, *Minerva*, and *Venus*, pretended each of them had a right to it. As none of the gods choſe to determine the diſpute, it was ſubmitted to *Alexander*, called alſo *Paris*, a ſon of *Priam*, King of Troy, *a ſhepherd* on mount *Ida*, a perſon famous for wiſdom and all the fine arts, but who was of an exceedingly amorous diſpoſition: To gain the prize, each of theſe three goddeſſes attempted

* See Appendix, No. I.

tempted to influence him by promiſes; *Juno* promiſed him a kingdom, *Minerva* wiſdom and the military art, and *Venus* the poſſeſſion of the moſt beautiful woman in the world. He, with a gallantry and ſpirit that would have reflected no diſhonour upon a Prince in our times, told them he could not pretend to determine the diſpute, unleſs by appearing naked before him; they made a fair diſplay of all their charms: This the married and imperial *Juno*, the chaſte *Minerva*, as well as the wanton *Venus*, complied with. *Paris*, by a deciſion, juſt in itſelf, if it had proceeded from proper motives, preferred *Venus* to the apple. He was ſoon thereafter recalled by King *Priam*, his father, from the occupation of a ſhepherd; and at the court of *Menelaus* King of Sparta, who was married to the beautiful *Helen*, in her huſband's abſence, won her affections, and carried her to Troy, which cauſed the Trojan war ſung

of

of by *Homer*, and occaſioned the deſtruction of that once famous city of *Aſia*.

To this *Thomſon*, in his *Seaſons*, alludes *, where *Damon*, unobſerved, ſees his *Muſidora* bathing—

Ah then! not *Paris* on the piny top
Of Ida panted ſtronger, when aſide
The rival goddeſſes the veil divine
Caſt unconfin'd, and gave him all their charms.

The real origin of the Trojan war ſeems to have been more remote than this pretended judgment of *Paris*; and the true hiſtory of it is not leſs in favour of the art of paſturage than the fabulous one. Hercules, a Greek adventurer, with his followers, had done ſignal ſervice to the Trojans, by ſaving the King's daughter: The King refuſed to perform his conditions; in return for his perfidy, Hercules ſacked the

* Thomſon's Summer, l. 1303.

the town, and carried off the Princeſs. When the Trojans were afterwards become powerful, they, in confederacy with the other ſtates of Aſia, wiſhed to wipe off the affront, by treating the Greeks in a ſimilar manner. The fame of *Helen* had reached them. *Alexander*, called alſo *Paris*, one of the King's ſons, then a *ſhepherd* on mount Ida tending his flocks, a young man of great gallantry and addreſs, willingly engaged in the adventure, in which he was ſucceſsful; and the queſtion was not ſolely between the Greeks and Trojans, but a general cauſe between Greece and Aſia. The judgment of Paris is merely an allegory on what may be ſuppoſed to have paſſed in *Paris'* mind; whether he ſhould prefer the peaceful and ſplendid life of an Aſiatic Prince at home—the ſtudy of wiſdom and the fine arts—or the poſſeſſion of beauty. It is well known the Greeks deified every thing, under the title of ſome perſon in the line of their ancient Kings; but

but any perſon uſed to their manner of writing may generally be able to comprehend the information meant to be conveyed.

The ladies, at this period, among their other accompliſhments, ſeem to have been ſkilled in manufacturing ſtuffs of a very great value. Helen is deſcribed as weaving the hiſtory of the Trojan war. This was equalling, if not going beyond, the ladies in Great Britain a few centuries ago, who were employed on hiſtorical pieces in tapeſtry.—We muſt indeed conclude, from the account of the Iſraelites in the Wilderneſs, that, even at that time, manufactures had made great progreſs both in Egypt and Babylon.

CHAP. IV.

Of Virgil's Syſtem of Paſturage, and the Reaſons why the ſame is not applicable to this Country.

AS I ſhall have occaſion afterwards to mention that ſome antiquaries are of opinion, we owe part of our improvements in the art of paſturage to the Romans, it may be proper to take notice of what they have ſaid upon this art; which, as their famous Poet Virgil has given it in a few lines, in one of his Georgics, I have been induced to inſert, more particularly as it may not be unpleaſing to the claſſical reader to be told the reaſons why, in this country, a method is followed different from

from that uſed among the Romans, and other ancient nations. He goes on thus:

——————Superat pars altera curae,
Lanigeros agitare greges, hirtaſque capellas.
Hic labor: Hinc laudem fortes ſperate coloni.
Nec ſum animi dubius, verbis ea vincere magnum
Quam ſit, et anguſtis hunc addere rebus honorem.
Sed me Parnaſſi deſerta per ardua dulcis
Raptat amor. Juvat ire jugis, qua nulla priorum
Caſtaliam molli divertitur orbita clivo.
Nunc, veneranda Pales, magna nunc ore ſonandum.
Incipiens, ſtabulis edico in mollibus herbam
Carpere ovis, dum mox frondoſa reducitur aeſtas:
Et multa duram ſtipula filicûmque maniplis
Sternere ſubter humum; glacies ne frigida laedat
Molle pecus, ſcabiemque ferat, turpeſque podagras.
Poſt, hinc digreſſus, jubeo frondentia capris
Arbuta ſufficere, et fluvios praebere recentes;
Et ſtabula a ventis hiberno opponere ſoli
Ad medium converſa diem: Quum frigidus olim
Jam cadit, extremoque irrorat Aquarius anno.
Hae quoque non cura nobis leviore tuendae;
Nec minor uſus erit: Quamvis Mileſia magno

Vellera mutentur, Tyrios incocta rubores.
Denſior hinc ſuboles : Hinc *largi copia* lactis,
Quam magis exhauſto ſpumaverit ubere mulctra ;
Laeta magis preſſis manabunt flumina mammis.
Nec minus interea barbas incanaque menta
Cinyphii tondent hirci, ſetaſque comantes,
Uſum in caſtrorum et miſeris velamina nautis.
Paſcuntur vero ſilvas, et ſumma Lycaei,
Horrenteſque rubos, et amantes ardua dumos.
Atque ipſae memores redeunt in tecta, ſuoſque
Ducunt, et gravido ſuperant vix ubere limen.
Ergo omni ſtudio glaciem ventoſque nivales,
Quo minus eſt illis curae mortalis egeſtas,
Avertes : Victumque feres, et virgea laetus
Pabula ; nec tota claudes foenilia bruma.
At vero, Zephyris quum laeta vocantibus aeſtas,
In ſaltus utrumque gregem atque in paſcua mittes :
Luciferi primo cum ſidere, frigida rura
Carpamus ; dum mane novum, dum gramina canent,
Et ros in tenera pecori gratiſſimus herba eſt.
Inde, ubi quarta ſitim coeli collegerit hora,
Et cantu querulae rumpent arbuſta cicadae ;
Ad puteos, aut alta greges ad ſtagna jubeto
Currentem iliginis potare canalibus undam ;
Æſtibus at mediis umbroſam exquirere vallem ;

Sicubi

Sicubi magna Jovis antiquo robore quercus
Ingentes tendat ramos, aut ſicubi nigrum
Ilicibus crebris ſacra nemus adcubet umbra.
Tum tenues dare rurſus aquas, et paſcere rurſus
Solis ad occaſum. Cum frigidus aëra veſper
Temperat, et ſaltus reficit jam roſcida luna,
Litoraque Alcyonem reſonant, et acanthida dumi.
Quid tibi paſtores Libyae, quid paſcua verſu
Proſequar, et raris habitata mapalia tectis?
Saepe diem noctemque, et totum ex ordine menſem
Paſcitur, itque pecus longa in deſerta ſine ullis
Hoſpitiis: Tantum campi jacet. Omnia ſecum
Armentarius Afer agit; tectumque, Laremque,
Armaque, Amycleumque canem, Creſſamque pharetram.
Non ſecus ac patriis acer Romanus in armis
Injuſto ſub faſce viam cum carpit, et hoſti
Ante expectatum poſitis ſtat in agmine caſtris.
At non, qua Scythiae gentes, Maeoticaque unda,
Turbidus et torquens flaventes Hiſter arenas;
Quaque redit medium Rhodope porrecta ſub axem.
Illic clauſa tenent ſtabulis armenta; neque ullae
Aut herbae campo adparent, aut arbore frondes;

Sed jacet aggeribus niveis informis et alto
Terra gelu late, ſeptemque adſurget in ulnas.

Si tibi lanicium curae; primum aſpera ſilva,
Lappaeque tribulique abſint: Fuge pabula laeta:
Continuoque greges villis lege mollibus albos.
Illum autem, quamvis Aries ſit candidus ipſe,
Nigra ſubeſt udo tantum cui lingua palato,
Rejice, ne maculis infuſcet vellera pullis
Naſcentum: Plenoque alium circumſpice campo.
Munere ſic niveo lanae, ſi credere dignum eſt,
Pan Deus Arcadiae captam te, Luna, fefellit,
In nemora alta vocans: Nec tu aſpernata vocantem.
At cui lactis amor, cytiſum, lotoſque frequentes
Ipſe manu, ſalſaſque ferat praeſepibus herbas.
Hinc et amant fluvios magis, ac magis ubera tendunt,
Et ſalis occultum referunt in lacte ſaporem.
Multi jam excretos prohibent a matribus haedos,
Primaque ferratis praefigunt ora capiſtris.
Quod ſurgente die mulſere horiſque diurnis,
Nocte premunt: Quod jam tenebris et ſole cadente,
Sub lucem exportans calathis adit oppida paſtor:
Aut parco ſale contingunt, hiemique reponunt.

Nec

Nec tibi cura canum fuerit poſtrema : Sed una
Veloces Spartae catulos, acremque Moloſſum,
Paſce fero pingui. Numquam cuſtodibus illis
Nocturnum ſtabulis furem, incurſuſque luporum,
Aut inpacatos a tergo horrebis Iberos.
Saepe etiam curſu timidos agitabis onagros,
Et canibus leporem, canibus venabere damas.
Saepe volutabris pulſos ſilveſtribus apros
Latratu turbabis agens; monteſque per altos
Ingentem clamore premes ad retia cervum.

Morborum quoque te cauſas et ſigna docebo.
Turpis oves tentat ſcabies, ubi frigidus imber
Altius ad vivum perſedit, et horrida cano
Bruma gelu : Vel cum tonſis illotus adhaeſit
Sudor, et hirſuti ſecuerunt corpora vepres.
Dulcibus idcirco fluviis pecus omne magiſtri
Perfundunt, udiſque Aries in gurgite villis
Merſatur, miſſuſque ſecundo defluit amni :
Aut tonſum triſti contingunt corpus amurca,
Et ſpumas miſcent argenti, vivaque ſulphura,
Idaeaſque pices, et pingues unguine ceras,
Scillamque, helleboroſque graves, nigrumque bitumen.
Non tamen ulla magis praeſens fortuna laborum eſt,

Quam ſi quis ferro potuit reſcindere ſummum
Ulceris os. Alitur vitium, vivitque tegendo:
Dum medicas adhibere manus ad vulnera paſtor
Abnegat, et meliora Deos ſedet omina poſcens.
Quin etiam, ima dolor balantum lapſus ad oſſa
Cum furit, atque artus depaſcitur arida febris,
Profuit incenſos aeſtus avertere, et inter
Ima ferire pedis ſalientem ſanguine venam:
Biſaltae quo more ſolent, acerque Gelonus,
Cum fugit in Rhodopen, atque in deſerta Getarum,
Et lac concretum cum ſanguine potat equino.
Quam procul, aut molli ſuccedere ſaepius umbrae
Videris, aut ſummas carpentem ignavius herbas,
Extremamque ſequi, aut medio procumbere campo
Paſcentem, et ſerae ſolam decedere nocti;
Continuo ferro culpam compeſce, prius quam
Dira per incautum ſerpant contagia vulgus.

VIRG. Georg. iii. v. 286.

——————Our following care
Shall wooly flocks or haggy goats declare;
Nor can I doubt what toil I muſt beſtow
To raiſe my ſubject from a ground ſo low:

And

And the mean matter which my theme affords,
To embelliſh with magnificence of words.
But the commanding muſe my chariot guides,
Which o'er the dubious cliff ſecurely rides:
And pleas'd I am no beaten road to take:
But firſt the way to new diſcoveries make;
Now, ſacred Pales, in a lofty ſtrain,
I ſing the rural honours of thy reign.
Firſt with affiduous care, from winter keep,
Well fodder'd in the ſtalls, thy tender ſheep.
Then ſpread with ſtraw the bedding of thy fold,
With fern beneath, to fend the bitter cold,
That free from gouts thou may'ſt preſerve thy care,
And clear from ſcabs produc'd by freezing air.
Next let thy goats officiouſly be nurſt,
And led to living ſtreams, to quench their thirſt;
Feed 'em with winter brouze, and for their lare
A cote that opens to the ſouth prepare:
Where baſking in the ſun-ſhine they may lie,
And the ſhort remnants of his heat enjoy.
This during winter's driſly reign be done,
Till the new ram* receives the exalted ſun:
For hairy goats of equal profit are
With woolly ſheep, and aſk an equal care.

'Tis

* The ſign *Aries*.

'Tis true, the fleece, when drunk with Syrian juice,
Is dearly ſold; but not for needful uſe:
For the ſalacious goat increaſes more,
And twice as largely yields her milky ſtore.
The ſtill diſtended udders never fail,
But when they ſeem exhauſted fill the pail.
Meantime the paſtor ſhears their hoary beards,
And eaſes of their hair the loaden herds.
Their camelots warm in tents, the ſoldier holds,
And ſhield the ſhiv'ring mariner from cold.
On ſhrubs they brouze, and on the bleaky top
Of rugged hills, the thorny bramble crop.
Attended with their bleating kids they come
At night unaſk'd, and mindful of their home,
And ſcarce their ſwelling bags the threſhold overcome.
So much the more thy diligence beſtow,
In depth of winter, to defend the ſnow:
By how much leſs the tender helpleſs kind,
For their own ills, can't fit proviſion find.
Then miniſter the brouze with bounteous hand,
And open let thy ſtacks all winter ſtand.
But when the weſtern winds with vital power
Call forth the tender graſs, and budding flower;

Then,

Then, at the laſt, produce in open air
Both flocks, and ſend them to their ſummer fare,
Before the ſun, while Heſperus appears;
Firſt let 'em ſip from herbs the pearly tears
Of morning dews; and after break their faſt
On greenſward ground, (a cool and grateful taſte);
But when the day's fourth hour has drawn the dews,
And the ſun's ſultry heat their thirſt renews;
When croaking graſshoppers on ſhrubs complain,
Then lead them to their wat'ring troughs again.
In ſummer's heat ſome bending valley find,
Clos'd from the ſun, but open to the wind;
Or ſeek ſome ancient oak, whoſe arms extend
In ample breadth, thy cattle to defend:
Or ſolitary grove, or gloomy glade:
To ſhield them with its venerable ſhade.
Once more to wat'ring lead; and feed again
When the low ſun is ſinking to the main.
When riſing Cynthia ſheds her ſilver dews,
And the cool evening breeze the meads renews.
When linnets fill the woods with tuneful ſound,
And hollow ſhores the halcyon's voice rebound.
Why ſhould my muſe enlarge on Lybian ſwains,
Their ſcatter'd cottages, and ample plains,

Where

Where oft the flocks without a leader ſtray,
Or through continued deſarts take their way,
And, feeding, add the length of night to day?
Whole months they wander, grazing as they go;
Nor folds, nor hoſpitable harbour know.
Such an extent of plains, ſo vaſt a ſpace
Of wilds unknown, and of untaſted graſs,
Allures their eyes: The ſhepherd laſt appears,
And with him all his patrimony bears:
His houſe and houſehold Gods! his trade of war,
His bow and quiver, and his truſty cur.
Thus, under heavy arms, the youth of Rome,
Their long laborious marches overcome:
Chearly their tedious travels undergo,
And pitch their ſudden camp before the foe.
Not ſo the Scythian Shepherd tends his fold:
Nor he who bears in Thrace the bitter cold:
Nor he who treads the black Meotian ſtrand;
Or where proud Iſter rolls his yellow ſand.
Early they ſtall their flocks and herds; for there
No graſs the fields, no leaves the foreſts wear.
The frozen earth lies buried there, below
A hilly heap, ſeven cubits deep in ſnow,
And all the weſt allies of ſtormy Boreas blow.

Is wool thy care? Let not thy cattle go
Where buſhes are, where burs and thiſtles grow;
Nor in too rank a paſture let them feed:
Then of the pureſt white ſelect thy breed.
Ev'n though a ſnowy ram thou ſhalt behold,
Prefer him not in haſte for huſband to thy fold:
But ſearch his mouth; and if a ſwarthy tongue
Is underneath his humid palate hung;
Reject him, leſt he darken all the flock;
And ſubſtitute another from thy ſtock.
'Twas thus with fleeces milky white (if we
May truſt report) Pan God of Arcady
Did bribe thee Cynthia; nor didſt thou diſdain,
When call'd in woody ſhades, to cure a lover's pain.
If milk be thy deſign; with plenteous hand
Bring clover-graſs; and from the marſhy land
Salt herbage for the fodd'ring rack provide,
To fill their bags, and ſwell the milky tide;
Theſe raiſe their thirſt, and to the taſte reſtore
The ſavour of the ſalt on which they fed before.
Some, when the kids their dams too deeply drain,
With gags and muzzles their ſoft mouths reſtrain.

Their morning milk, the peaſants preſs at night:
Their evening meal before the riſing light
To market bear: Or ſparingly they ſteep
With ſeaſoning ſalt, and ſtor'd for winter keep.
Nor laſt, forget thy faithful dogs: But feed
With fatt'ning whey the maſtiff's generous breed,
And Spartan race: Who for the fold's relief
Will proſecute with cries the nightly thief:
Repulſe the prowling wolf, and hold at bay
The mountain-robbers, ruſhing to the prey.
With cries of hounds, thou may'ſt purſue the fear
Of flying hares, and chace the fallow-dear;
Rouze from their deſart dens, the briſtl'd rage
Of boars, and beamy ſtags in toils engage.

The cauſes and the ſigns ſhall next be told
Of every ſickneſs that infects the fold.
A ſcabby tetter on their pelts will ſtick,
When the raw rain has peirc'd them to the quick,
Or ſearching froſts have eaten through the ſkin,
Or burning icicles are lodg'd within:
Or when the fleece is ſhorn, if ſweat remains
Unwaſh'd, and ſoaks into their empty veins:
When their defenceleſs limbs the brambles tear,
Short of their wool, and naked from the ſheer.

Good

Good ſhepherds after ſhearing drench their ſheep.
And their flock's father (forc'd from high to leap)
Swims down the ſtream, and plunges in the deep.
They 'oint their naked limbs with mother'd oil;
Or from the founts where living ſulphur boil,
They mix a med'cine to foment their limbs,
With ſcum that on the molten ſilver ſwims.
Fat pitch, and black bitumen, add to theſe,
Beſides the waxen labour of the bees,
And hellebore, and ſquils deep-rooted in the ſeas.
Receipts abound; but ſearching all thy ſtore
The beſt is ſtill at hand to launch the ſore:
And cut the head; for, till the core be found,
The ſecret vice is fed, and gathers ground:
While making fruitleſs moan, the ſhepherd ſtands,
And, when the launching knife requires his hands,
Vain help, with idle pray'rs from heav'n demands,
Deep in their bones when fevers fix their ſeat,
And rack their limbs, and lick the vital heat;

The ready cure to cool the raging pain,
Is underneath the foot to breath a vein.
This remedy the Scythian ſhepherds found,
Th' inhabitants of Thrace's hilly ground,
And Gelons uſe it; when for drink and food
They mix the cruddl'd milk with horſes blood.
But where thou ſee'ſt a ſingle ſheep remain,
In ſhades aloof, or couch'd upon the plain;
Or liſtleſsly to crop the tender graſs;
Or late to lag behind, with truant pace;
Revenge the crime; and take the traitor's head,
E'er in the faultleſs flock the dire contagion ſpread.

DRYDEN.

There is no country, in ſome reſpects, better calculated for paſturing ſheep than Scotland, as it abounds in ſprings, rivulets, rivers, and lochs of freſh water, and has every variety in the nature of the ſoil neceſſary for theſe uſeful animals. It is alſo moſt part of it conveniently ſituated in point of climate, as they neither agree with exceſſive heat nor cold. In this kingdom

dom there are no ſavage carniverous animals of the genus of quadrupeds, the fox excepted; for, though it appears there were once wolves in it, they have been long ago extirpated; and, to prevent foxes from increaſing, or doing much miſchief, in counties where ſheep are paſtured, there is a perſon appointed for deſtroying them, with a ſalary for his trouble, and to defray his expence in keeping dogs for the purpoſe *. Here, therefore, we find

* ——Behold, deſpiſing flight,
The rous'd up lion, reſolute and ſlow,
Advancing full on the portended ſpear,
And coward band, that circling wheel aloof.
Slunk from the cavern, and the troubled wood,
See the grim wolf; on him his ſhaggy foe
Vindictive fix, and let the ruffian die:
Or growling horrid, as the brindled boar
Grins fell deſtruction, to the monſter's heart,
Let the dart lighten from the nervous arm.
Theſe BRITAIN *knows not;* give ye BRITONS, then,
Your ſportive fury, pityleſs to pour.

Looſe

find no occaſion to gather ſheep once a day to the watering places, or to put them into folds, except in a ſtorm of ſnow. It is alſo to be obſerved, that ſheep are the better the more ſeldom they are gathered or handled; for both they and their fleeces are hurt by it. Goats, on the other hand, as they have too much milk for their young, (which is not the caſe with ſheep), are the better the oftener they are handled; and their covering is not of equal value with that of ſheep. As the Romans ſet a greater value upon the milk of goats and ſheep than upon wool, or upon the preference of mutton to goat's fleſh, and as they *daily* folded their flocks, they might be led to prefer goats: But, as we wiſh to breed great numbers, and prefer lamb, or wedder-mutton to kid or goat's fleſh, as our flocks

Looſe on the nightly robber of thy fold:
Him from his craggy winding haunts unearth'd
Let all the thunder of the chaſe purſue.
Thomſon's Seaſons.

flocks range in a great meaſure unconfined, and as wool is the ſtaple commodity of this kingdom, we are led to prefer ſheep. It is believed the antideluvians preferred ſheep to goats; and we ſee that the Egyptians and Iſraelites did the ſame. In places exceſſively rocky, indeed, where no ſheep can paſture, goats may be kept, or a ſmall number, on account of their milk, which is often beneficial for its medicinal qualities to perſons in a bad ſtate of health; but it is not convenient to keep them where there is young wood growing, as they are extremely deſtructive to it.

Virgil's ſyſtem, for the place in which it was written, was no doubt the beſt that could have been formed, ſo far as he enters into the ſubject; and far from wiſhing to detract from it, I have endeavoured to give a rational account why it has not been adopted in this country, which I hope will ſatisfy the candid reader. Poſ-

ſibly

ſibly never any Poet underſtood the theory of the art better; nor was there ever (local circumſtances conſidered,) ſo much good practical ſcience comprized in ſo few beautiful lines; but, at the ſame time, he admits that his ſyſtem is only local, in this paragraph,

Why ſhould my muſe enlarge on Lybian ſwains,
Their ſcatter'd cottages, and ample plains?
Where oft the flocks without a leader ſtray,
Or through continued deſarts take their way
And feeding, add the length of night to day.
Whole months they wander, grazing as they go,
Nor folds nor hoſpitable ſhelter know.
Such an extent of plains, ſo vaſt a ſpace
Of wilds unknown, and of untaſted graſs,
Allures their eyes; the ſhepherd laſt appears,
And with him all his patrimony bears,
His houſe and houſehold Gods, his trade of war,
His bow and quiver, and his truſty cur.

Which lines, by the bye, are very deſcriptive of the manners of the ancient Britiſh

Britiſh ſhepherds, at the very time he wrote, as well as of the Lybians, to whom he particularly applies them.

From the facts above ſtated, it will appear inexcuſable in the compilers of the *Encyclopoedia Britannica* to follow this famous claſſic ſo far as to prefer goats to ſheep.

CHAP.

CHAP. V.

Of Paſturage in Scotland, previous to and at the time of the Roman invaſion.

IN barbarous ages, every tradition is believed, with all its exaggerations and embelliſhments: Even fables and allegories ſometimes paſs for ſerious truths. Modern refinement and philoſophy, with equal or greater impropriety, believes nothing, unleſs proven beyond all poſſibility of doubt; without making allowance for the periſhing of evidence through length of time. This kind of philoſophy, as obſerved by Lord Bacon, or ſome other eminent writer, is of ſo corroſive a nature if it cannot get falſehood to act upon, it will

will attack truth; as if it were more meritorious to find fault with than to juſtify. True philoſophy is of a nobler nature. The famous Newton in his ratification of chronology, by the aids of aſtronomy, added to other ſources of information, has again given the ſtrongeſt degree of credit to many traditions which had been for a long time current, and afterwards diſputed. Theſe reflections occur in conſidering the original population of Scotland, and the different colonies which have ſettled there. It is generally underſtood, that the north of Europe was firſt peopled by the deſcendents of Japhet.—Theſe inhabited thinly, hardly lived fixed to one place, and was extremely ignorant in the arts.—Arts and learning ſeem to have been ultimately derived from Egypt, in the greater part of the world. There is a tradition that *Gathelus*, the ſon of Cecrops,* brought

* Black Book of Paiſley, Hector Boece, Holinſhed, &c.

brought a colony from Greece into Scotland, which family enjoyed for ſome time, in part of it, the regal authority *. Former writers have placed the tranſactions of this period as far back as the days of Moſes, but Sir Iſaac Newton has brought them as far down almoſt as Jehoram, which very much confirms the tradition. It appears that Britain was known to the Phenicians before this period;—that Medicratus or Melcratus had brought lead from it, and the Tyrians at this time traded to Thule†;—that part of thoſe Phenicians had ſettled in Greece,—from which this country might have been heard of;—and that Cecrops himſelf had left Egypt to ſettle in Greece: Having a great number of ſons, there is no improbability ſome of them, fired with the account of their father's adventures, might have brought a colony from Greece to

* Fordun ſays he was the ſon of Nicholus one of the kings of Greece.

† Pliny, B. 7. 6. 56.

to Spain, to Ireland, and the weſtern parts of Scotland, which might have introduced many of the arts both for the preſervation and the deſtruction of mankind*; for inſtance, the war-chariot, the ſhield, and the ſpear, all formerly uſed in Scotland; nay, it is a well authenticated fact, that the Greek language was not there till the Roman invaſion†. This rectification of chronology, leaves a much ſhorter period

* If I had the genius of a Fenelon, this expedition would furniſh a ſubject for an epic poem; into which might be wrought the ſubſequent hiſtory of the kingdom, till the preſent happy period; but being partly diſcuſſed by Oſſian and Shakeſpeare, and there remaining to be ſung the merits of heroes inferior only to theirs, as Alexander the Great was to Achilles, for want of a Homer:

Quum canerem reges et Proelia, Cynthius aurem
Vellet et admonuit: PASTOREM, *Tityre*, PINGUIS
PASCERE OPORTET OVIS.

† Dr Henry's Hiſtory of Britain.

for the hiſtory thereof to depend ſolely on tradition. Some parts of Oſſian's poems corroborate the account of two different kinds of inhabitants, both in Ireland and Scotland, who appear to be the *aborigines*, and theſe colonies ſettled there. The bards, in the time of Homer, and the manner of living, ſeem exceedingly like thoſe formerly in this kingdom. The religion of this country, previous to the introduction of Chriſtianity, was the ſame as that of the predeceſſors of Cecrops, before they had begun to multiply their deities in Egypt and Greece. From this ſource the Highland dreſs might alſo probably be adopted, as from what we learn from buſts, paintings, prints, &c. it is extremely ſimilar to that anciently uſed by the Greeks, who had by this time made ſome progreſs in manufactures. It is probable it was a family manufacture. Other parts of this kingdom are poſſibly indebted

ed to the Phenecians and Romans for this article.

According to Buchanan, the Scots, at the earlieſt period of which he pretended to give a true hiſtory of them, were in different clans without any king, and dwelt in the weſtern parts of the kingdom;—the Picts came afterwards into the kingdom; (this ſeems to have been a colony ſtill latter from ſome other place, they are ſaid to have inhabited the eaſtern coaſts). The Scots occupied the mountainous parts of the country and paſtured flocks, and the Picts cultivated the *lands* neareſt the ſeaſhore. By his account, *Fergus*, who lived ſome time after this period, was *the firſt king of the Scots*. *Dr Henry*, in *his hiſtory of Great Britain*, ſays, That the patriarchal was the moſt ancient form of government. That ancient kingdoms conſiſted of one, two, three, four, or more tribes, or clanſhips, who afterwards made choice of one perſon to be their king, who was

commonly the head of the chief clan of which the ſtate was compoſed; while each of the heads of the other tribes ſtill retained a degree of authority in their own tribe: and that there were many ſmall kingdoms in Great Britain when invaded by the Romans. *Paſturage* (ſays he) was the great employment and chief means of ſubſiſtence of the far greateſt part of the inhabitants of the iſland, when it was firſt invaded by the Romans. Many of the ancient Britiſh nations are thought by ſome antiquaries to have derived their names from their paſtoral life, and from the particular kinds of cattle which they principally tended. 'The iſland of Britain '(ſays *Cæſar*) abounds in cattle, and the 'greateſt part of thoſe within the country 'never ſow their lands, but live on fleſh 'and milk*.' Even in the moſt northern extremities of Britain, where the people depended moſtly on hunting, they were altogether

* Cæſ. de Bel. Gall. l. 5. c. 10.

together deſtitute of flocks and herds of cattle. But theſe ancient Britiſh ſhepherds ſeem to have been ignorant of ſome of the moſt uſeful parts of the art, till they were inſtructed in it by the Romans. We have no reaſon to think that they were acquainted with the art of caſtrating animals, in order to meliorate their fleſh; and we know from good authority, that they were ignorant of the art of making cheeſe. One of the moſt learned antiquaries thinks it probable, that *Scribonius*, phyſician to the emperor *Claudius*, was the firſt who inſtructed the Britiſh in theſe uſeful arts. This is the account given by the learned Doctor, and many authorities are referred to in ſupport of it; but, in order to prove that the practice of caſtrating ſheep to meliorate their fleſh was introduced into this kingdom by the Romans, it will be neceſſary to prove, that the Romans followed this practice themſelves previous thereto, if we were igno-

rant of it, which can hardly be granted. It will not be ſufficient to inſtruct it, to ſhow that we were ignorant of the art of making cheeſe. They had, and ſtill have, in the Highlands of Scotland, a particular method of preparing milk by frothing it, deſcribed in *Boſwell's Journal*: In ſome places in the country it is allowed to curdle itſelf, and uſed under the name of lappered milk; in others it is churned with milk and the cream together. In Siberian Tartary, a kind of vinous or fermented liquor is made of milk, exceedingly nouriſhing; the method of making it, formerly a ſecret to all the chemiſts in Europe, was lately tranſmitted by Dr Grieve, and is mentioned in the *Tranſactions of the Royal Society of Edinburgh* 1788; any of theſe practices or inventions might retard that of making cheeſe. There ſeems indeed to be no connection between the art of making cheeſe and that of caſtrating animals. We find that anciently

anciently few nations were ſo very nice in their taſte as to follow the practice of caſtrating any kind of animals, far leſs ſheep, to meliorate their fleſh; accordingly, Jacob tells Laban, that 'the rams of 'his flock had he not eaten*;' the paſcal lamb was to be a male of the firſt year from the ſheep or from the goats†; the ram offered at conſecrating the prieſt, part of him was to be eaten by the prieſt and his ſons‡: In the Iliad, ſuppoſed to have been written about the time of Rehoboam, and the heroes of it to have lived about a generation before, we find that on Ajax's return from the ſingle combat with Hector, a bull of five years old was ſlain for ſacrifice, and for the princes to feaſt on, and the chine placed before Ajax as a particular mark of reſpect. As Mr Pope ſometimes uſes the maſculine

* Geneſis chap. 31. ver. 38.

† Exodus chap. 12. ver. 5.

‡ Exodus chap 24. ver. 32.

maſculine for the feminine gender, *et vice verſa*, or a doubtful term for either, the reader is deſired to conſult the original, in which he will find the words 'Βουν Ἀρσενὰ, 'πεντα'ετηρον,' *Latinè*, '*taurum, marem quin-* '*quennem*,' literally tranſlated into Engliſh; 'a bull, a male of five years old.' We alſo find, that 'the Philiſtines brought 'Jehoſaphat preſents and tribute ſilver; 'and the *Arabians* brought him flocks, 'ſeven thouſand and ſeven hundred *rams*, 'and ſeven thouſand ſeven hundred *he-* '*goats**.' The fact is curious. Is there to be a diſtinction here made betwixt the *flocks*, and the *rams*, and *he-goats*? or, are the latter an enumeration of the particulars of the former? I muſt acknowledge I am inclined to the latter opinion; for, if they had ſent ewes and ſhe-goats in proportion, for breeding, it would have required upwards of 300,000 ewes, and

I,

* 2 Chronicles chap. 17. ver. 10 and 11.

1,155,000 ſhe-goats *; we cannot ſuppoſe that Jehoſaphat was ſo well verſed in theſe matters as to know what change a different kind of rams and he-goats only would occaſion, and wanted them to mend the breed; or that he would try the experiment with ſo great a number. If none of theſe ſuppoſitions are to be admitted, except that the numbers are an enumeration of the flocks ſent, we muſt conclude that the method of caſtrating to improve the fleſh had not been known among them, and that theſe rams and he-goats were thought the moſt proper for food, and ſent as a preſent for that purpoſe. Virgil alſo, it may be obſerved, although he was a ſhepherd, and treated of the art

at

* One ram is ſufficient for 40 ewes at leaſt. Eighteen ſcore of goats and a buck are a ſoum, one buck being ſufficient for 360 ſhe-goats; and, by the ſmalleſt account, for 150. There is, indeed, another reaſon given for the quantity in a ſoum, though this was probably the real one.

at conſiderable length, takes no notice of caſtrating lambs to improve their fleſh when old ſheep, though he lived only two generations, or between 40 and 50 years, at moſt, before the time mentioned of introducing the cuſtom into Britain, as he lived in the reign of Auguſtus, and there was only Tiberius, who reigned 23 years, and Caligula, who reigned 3 years, betwixt Auguſtus and Claudius; on the contrary, he gives the Scythians, from whom ſome think part of the ancient Britons were derived, the honour of inventing one of his principal cures for diſorders to which ſheep are incident. As the Britons lived almoſt entirely by paſturage, and it was only a ſmall part of the means of ſubſiſtence among the Romans, is it altogether impoſſible the Romans might have learned this from the Britons, in place of their having learned it from the Romans? Oxen are mentioned to have been uſed at an early period in almoſt every nation,

except

except among the Romans, who, it appears from Virgil's firſt Georgic, plowed with *cows* and *bulls*; thus it appears, oxen were uſed in Egypt in the days of Abram, and among the Greeks in the time of Heſiod; and, it is probable, were alſo uſed in Britain at that very time; there could therefore be little occaſion to call the *emperor's phyſician to the operation*, to demonſtrate that it might be *ſafely performed* on theſe poor uncomplaining patients.

CHAP.

CHAP. VI.

Of Paſturage in Scotland ſince the Roman Invaſion, and under the Military Barons.

A CONSIDERABLE time after the Romans had invaded Britain, the Goths and Vandals, and other Northern nations, poured like a torrent into the Roman empire, and overthrew it. Their leaders, to ſecure their conqueſts, portioned out part of the conquered lands to their principal followers, to be held of them for homage and military ſervices: They again ſubdivided part of theſe lands to thoſe under them for the like conſiderations. In imitation of this plan of military policy, moſt

moſt of the Princes in Europe prevailed on their ſubjects to ſurrender their lands to be held of them in this manner, and the nobles again portioned out part of their patriarchal inheritances which they had ſo ſurrendered and got back as a gratuity, to certain of their kinſmen and dependents as their followers, or prevailed on perſons of ſmall inheritances to hold of them for their protection. Among other places, this plan was adopted in Scotland, which it would be the more readily, as it differed in appearance ſo little from the patriarchal form of government, particularly in time of war, in which that nation was frequently engaged. The King's vaſſals were obliged to attend him to the field when called, and the ſub-vaſſals had to attend theſe vaſſals as their ſuperiors. In time of peace the King's immediate vaſſals formed his *court*, *great council*, or *parliament*; and the vaſſals of ſubject-ſuperiors, or ſub-vaſſals, had to give ſuit and preſence at their courts, whereof

they conſtituted the *pares curiae*, or peers, of whom their juries were formed, and before whom every thing was tranſacted regarding their feus or diſputes among themſelves: By theſe means the attention of proprietors of lands was ſo much taken up that they found it neceſſary to grant leaſes of their lands for a certain yearly rent, or to employ perſons to manage them in their abſence, and be accountable to them for a certain ſhare of the profits. Theſe were perſons in the middle rank of ſociety, above ſlavery on the one hand, and under the degree of *nobleſſe*, or baronage, on the other. From this military ſyſtem may alſo probably be deduced the diviſion of lands into farms; for, in grants by ſubject-ſuperiors to their vaſſals, there would be exactly ſuch a quantity of land granted as would conveniently maintain the vaſſal *. By the many caſualties attending this ſyſtem, by

* See Appendix, No. III. from which this will appear the more probable.

by which the lands fell into the maſter's hands, the whole lands in the kingdom might ſoon be divided into quantities of this kind. Whether the diviſion took place in this manner or not, or at whatever time done, it ſeems to have been made with the moſt conſummate wiſdom. When the diviſion was once made the right primogeniture preſerved it. When the ſtrict feudal principles had been a little relaxed, and lands came to be held for other than military ſervices, ſome of the tenants took perpetual leaſes of their lands under the title of feu-holdings, which differ in little from tacks, except in being to perpetuity, and requiring charter and ſeiſine; which laſt muſt be regiſtered, this being an alienation or perpetual incumbrance on the lands, the feuer being obliged, as in tacks (or leaſes) to pay a certain ſum yearly in money or victual, and an acknowledgment at the entry of a new poſſeſſor, and incurring an irritancy for neglect

neglect of payment; and even those who had only tacks (or leases) for a certain number of years seem not to have been thought unworthy of the attention of the legislature; for, by an act of parliament passed some centuries ago, the tenant's goods cannot be pointed for the master's debt above the extent of his term's rent; and by an act, somewhat later, a tenant cannot be removed from lands, unless he has been warned forty days preceding the term of Whitsunday at which he is to remove.

CHAP.

CHAP. VII.

Of Paſturage in Scotland ſince the aboliſhing of Military Services, and the Advantages that might ariſe from it, and from Arts, Manufactures, Fiſheries, and Commerce.

THE feudal ſyſtem has been now ſome time in effect put an end to. Whilſt it ſubſiſted, the profeſſion of arms, with its halls and its turrets, the heritable juriſdictions, with their courts and their ſuitors, eclipſed in ſplendour the calmneſs and ſimplicity of the life of a ſhepherd or huſbandman *. When this ſyſtem came to

* For I had heard of battles, and I long'd
To follow to the field ſome warlike lord.
Douglas.

an end, and the gentlemen of birth and fortune laid aſide the ſword and the gown; the ſheephook and the plough had been ſo long neglected, that few of them either thought of, or knew how to uſe them. Thoſe who had any knowledge of farming uſed it only for the purpoſe of obtaining higher rents, which they either ſpent in luxury and diſſipation at home, or drained the country of, to waſte in populous cities. This riſe of rents arouſed an enterprizing genius among the tenants. Speculative perſons took farms, for producing grain, and engaged to pay high rents, which they propoſed to make effectual, by newly invented manures, and new methods of ploughing and croping. Miſapplication of certain ſpecies of improvement, proper in themſelves, and the great expence attending theſe modes of improvement, made them frequently fail of the end propoſed; and it was found, though by means of lime or marle, ground newly brought in might

might be made for a time to yield a greater produce; yet that, in other lands, if uſed either often, or in great quantities, in place of enriching the ſoil, they impoveriſhed it, and would even reduce it to a *caput mortuum*, to abſolute barenneſs, if not diſcontinued. A plentiful crop of inſolvencies, bankruptcies, and ſequeſtrations, among all ranks, followed. This ſpirit of enterprize, and ſtudy of improvements, among the farmers, had a good effect as to the poſſeſſors of paſturage-farms, which enabled them to ſtand better than they would otherwiſe have done: For there was this amazing difference from the improvements in agriculture, that thoſe in agriculture were attended with much expence, whilſt thoſe in paſturage were attended with little or none. A taſte for the paſtoral life may yet put an end to the evils which have ariſen from the neglect of it. To this plan of life, there are many inducements. The degree of labour and induſtry

induſtry requiſite is nowiſe unſuitable to the life of a gentleman *. It is preferable, in point of cleanlineſs, to walking among dirty fields, dung, plowed land, ditches, and all the apparatus of agriculture. Exerciſe, and good air, are poſſibly preferable, in point of health, to two thirds of the *Materia Medica*, and proper diet to the other third; for this laſt article, it is certainly better to have every thing of one's own produce, ſuch as lamb, and five year old wedder mutton, at any ſeaſon, than go to market for them. In good weather, and when not engaged with company, or in the ſports of the field, to prevent langour and *ennui* on the one hand, or folly and diſſipation on the other, there is nothing better than to ſuperintend one's farm, and plan, or ſee plans of improvement executed; for paſturage, as well as agriculture, is

* Dr Reid diſtinguiſhes the two arts thus:

"The *amuſements* of Paſturage, the *labours* of Agriculture."

is capable of improvement, and no perſon will diſpute that there are abundance of mountainous lands in Scotland incapable of improvement by agriculture to try the experiment on. I do not mean to be underſtood as maintaining that gentlemen of very extenſive landed property ſhould take all their lands into their own hands; one good farm or two is ſufficient; and it will be for their intereſt to ſet the reſt: Some of their younger brothers or ſons may be provided in this manner with farms completely ſtocked with their patrimony *, and the remainder ſet to tenants, at reaſonable rents. The number of nobility and gentry, in this country, tied to attendance at court, on the buſineſs of the nation, bear ſo ſmall a proportion to the numbers who are not engaged therein, and they have ſo much of the beſt part of the year for the country,

* That this was the practice in the Hebrides, ſee Appendix, No. III.

country, that it is hardly neceſſary to mention them as incapable of attendance to this plan of life: Indeed, ſeveral of them, during the prorogations of parliament, pay the greateſt attention to their farms. Men of fortune have a ſpecies of improvement in their power beyond the reach of tenants, whoſe farms require all their money and credit. This is the encouragement of arts, manufactures, and fiſheries, which will both bring money into the kingdom, and cauſe a greater demand for the articles of conſumpt. From home manufactures, if carried on prudently, there is a double profit, in place of a ſingle, in compariſon of ſelling the raw materials; beſides the furniſhing employment for many thouſands. For inſtance, wool, to the amount of L. 40,000, is ſaid to be imported annually, to be uſed in the *Stocking Manufactory* at Aberdeen *. It is ſaid the manu-

* See Wight's Huſbandry, &c.

manufacture of ſhoes and ſtockings there was introduced by Oliver Cromwell's ſoldiers while in that place *. It is long wool is uſed there. If a manufactory of cloth requiring ſhort wool were carried on in

* Dr Johnſon would even have it they did not know how to make *brogues* till then. He poſſibly did not wiſh to know, that, if not learned from the Greeks, it might have been from the Romans, as it appears from Albertus Rabenius they were uſed by them, with about ſeventeen other kinds of ſhoes. To ſhow that the Scots went bareſcoted till then, which he maintains, he ſhould not only have ſhown that there were no other kinds of ſhoes, but alſo have proſcribed *hoſe*, which gave place to *ſtockings*, as without ſome kind of ſhoes they could be of no uſe. But I have read lately, in a Journal through part of England, by a dignitary of their church, of his meeting women with *naked feet*, as he expreſſes it; which ſhows that the Doctor might have met with people going barefooted in ſummer nearer home; which he probably now ſees from the hind paw of *Urſa Major*, where he has been diſcovered by Mr Meſſier, 26th December 1788!!

in different places to the ſame extent, there would be a conſiderable profit. To encourage us, we find that there is a demand for almoſt any kind of manufacture produced in this country. The ſmall expence of workmen and living is a great inducement; and this will probably continue till ſome progreſs be made therein, ſo far at leaſt as to put us on a level with others. Artificers may alſo be brought from other places, till the natives be perfectly inſtructed; for the laws againſt enticing artificers, and tranſporting tools, do not apply to taking them from one part of the kingdom to another, as it is for the benefit of the whole. So far from there being any diſcouragement to the attempting of theſe improvements, even by perſons of ſmall fortunes, if propoſed with a reaſonable proſpect of ſucceſs, there are truſtees appointed, and ſocieties entered into, for the ſpecial purpoſe of encouraging the arts, manufactures, and fiſheries, with both

hands

hands open holding out premiums. The nomination of the truſtees, with a fund of five or ſix thouſand pounds for this purpoſe, was obtained about the year 1726. In 1746, Archibald Duke of Argyle procured a royal charter for the eſtabliſhment of a Britiſh Linen Company, with a capital ſtock of L. 100,000, which may be farther increaſed, as the affairs of the Company ſhall require. The Edinburgh Linen Hall is under the management of the above truſtees, and the expence defrayed by them. It was opened in June 1766, for the ſale of linens, and lately for the ſale of woollens and linen-yarn. The linens, &c. are lodged by the manufacturers at the loweſt rates, and are bought and ſold every day, except holidays, but eſpecially at the four fairs in the firſt weeks of December, March, July, and September. To prevent any wrong concluſion from theſe facts, as to the origin of the arts, manufactures, and fiſheries of Scotland, it is

neceſſary to mention that, though the genius of the people was military, they had, in every interval of peace, turned their attention to theſe objects. It is impoſſible they could have otherwiſe erected the magnificent ſtructures of the 11th, 12th, and 13th centuries. We ſee from a prohibition to import woollen manufactures, and the encouragement to *export* them, that they conſidered themſelves as not only able to anſwer their own demands, but to export. They beſides exported leather, peltry, coals, lead, and fiſh of different kinds; nay, from the aſſiſtance given to other nations, in war, or other cauſes, they had obtained certain excluſive privileges and advantages. But the ſucceſſion of King James VI. to the crown of England, and more particularly the Union of the two kingdoms, by giving England a right to a participation thereof, in effect annihilated the Scots commerce with the Low Countries, their African and India trade, and

all

all their excluſive privileges and exemptions. As the Court was the ſtandard of faſhion, the removal of it introduced articles manufactured in England, in preference to their home produce; and though, by the Union, they were entitled to a communication of trade and manufactures with England, their ſhare in the joint trade was next to being unclaimed. The part they ſhould have taken was not, certainly, in addition thereto, to diſcontinue their own, becauſe the ſame objects were attended to there; nor to neglect the fiſheries, becauſe the Dutch were enriching themſelves by them. The nomination of the truſtees was therefore on the decline of trade, riches, and national induſtry, in Scotland, and not, as ſome would probably imagine, on their introduction. It was like putting an eſtate, verging to bankruptcy, into the hands of truſtees, to preſerve ſome ſmall reverſion. Unleſs from the decay of trade and riches, how

are the neglected caſtles and decayed boroughs to be accounted for? One would be led to imagine, that, at diſſolving the clans, the great number of perſons who, by their having no further concern with their chiefs, were rendered deſtitute of employment, would have engaged in arts, manufactures, and fiſheries, as theſe could hardly be overſtocked: But a certain length of time was neceſſary before even this could have conſiderable effect; for it was not to be expected that ſuch an alteration as that, from the art of war, and the ſports of the field, to paſturage, manufactures, the fiſheries, and commerce, ſhould inſtantly be again brought about. But, although the effects of the encouragement thereof, added to the diſſolution of the clans, have not been inſtantaneous, it would appear they have not been of no effect; ſince, for theſe ſeveral years paſt, ſome of the greateſt men in the kingdom have been turning their attention to theſe objects.

objects. As an inſtance how far the ſpirit of a nation may be directed to arts, commerce, and maritime affairs, I might mention the ancient Tyrians, and the Dutch at a late period; and an inſtance occurs of a nation of antiquity, (though not inhabiting claſſic ground), who were turned to it in one reign, viz. the Jews, in the reign of Solomon; the conſequence of which was, they had 'Gold and ſilver in Jeruſalem as plenty as ſtones.'

The advantages of theſe purſuits, not only to the perſons engaged therein themſelves, but to the landholders, are manifeſt, as they will furniſh work for a great number of induſtrious people, who muſt otherwiſe go to foreign countries to gain their ſubſiſtence, upon uncertain proſpects, removed from their native climate, or elſe ſtarve at home; who, thus employed, will be able to pay a good price for the neceſſaries of life, moſt of which they can nowhere find ſo well as from theſe poſſeſſors

of lands. Villages may be erected for their better accommodation, free from the reſtraints and the vices of corporations *; and markets eſtabliſhed for the convenience of all parties. Theſe markets will be better for the ſtoremaſters than thoſe at a greater diſtance; as the nearer the market is, the cattle will look and ſell the better, abſtracting from the increaſe of the demand, and the expence of driving to a market at a diſtance. Thus, from paſturage, in conjunction with arts, manufactures, and fiſheries, properly proportioned, under the auſpices of a Sovereign and a Miniſter favourable to the arts of peace, riches will be brought into the country to all ranks of people; the ruinous farm-houſe will be rebuilt; the old meadows brought

* For the nature of the rights to the houſes, &c. in theſe villages, ſee Appendix, No. IV.; and ſee alſo, *Forms of Writings*, lately publiſhed, *voce Feu Contracts* &c.; and *Appendix to Supplement thereto, voce Tack.*

brought in for fodder to black cattle; the arable ground improved by the length of time it has lain out, will be again laboured; the deſolate caſtle will be rebuilt; and the neglected policy renewed. The farmer, with a ſmaller poſſeſſion, will make a greater income, by a ready demand for every thing, and the maſter from the increaſe in the value of his eſtate. By the men of fortune remaining in the country, the money will not be drained out of it; and the nation will not appear like a monſtrous birth, with a huge deformed head, and diminutive, extenuated, conſumptive members; but, on the contrary, like a perſon of exact ſymmetry and proportion. The number of inhabitants, too, will be increaſed, in which the riches of a kingdom conſiſt, when employed in uſeful arts, and able to ſupport themſelves. As this part of the kingdom is liable, as well as England, in payment of the national debt, and as the taxes upon

commerce,

commerce, and the luxuries of life, are equally high here as in England; by the increaſe of population, riches, and commerce, the taxes paid by this part of the kingdom will become infinitely more productive; by which the public finances will be augmented, the debt diminiſhed, and the nation, as well as individuals, reap a laſting benefit.

Having treated, at conſiderable length, of the *Hiſtory of Paſturage*, and advantages ariſing from it, I ſhall, in the next place, proceed to the *Art of Paſturage*, or method of management of ſheep-farms, in ſtocking, feeding, marking, ſorting, breeding, ſalving, chooſing relief-paſture, and other parts of the art.

END OF PART FIRST.

That this Part and the next might be nearly of a ſize, it was thought proper the Appendix herein referred to ſhould be added at the end of this Part.

APPENDIX.

No. I.

"THE ſcene of my captivity was a deſart, where the plain is a burning ſand, and the mountains are covered with ſnow; below was intolerable heat, and above was perpetual winter: The paſturage was thinly ſcattered among the rocks; the mountains were ſteep and craggy, and the valleys between them were almoſt inacceſſible to the rays of the ſun; nor

nor had I any ſociety in this dreadful ſituation, but that of the ſhepherds, who are as rude and uncultivated as the country. Here I ſpent the night in bewailing my misfortunes, and the day in following my flocks.

" To ſhorten the tedious hours of captivity and ſolitude, I endeavoured to procure ſome books; for I ſunk under the ſenſe of my condition, merely becauſe I had nothing either to recreate or fortify my mind. Happy, ſaid I, are thoſe who have loſt their reliſh for tumultuous pleaſure, and are content with the ſoothing quiet of innocence and retirement! Happy are they, whoſe amuſement is knowledge, and whoſe ſupreme delight the cultivation of the mind! Wherever they ſhall be driven by the perſecution of fortune, the means of enjoyment are ſtill with them; and that weary liſtleſſneſs, which renders life inſupportable to the voluptuous and the lazy, is unknown to thoſe who can employ

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themſelves by reading. Happy are thoſe to whom this employment is pleaſing, and who are not, like me, compelled to be idle. While my mind was agitated with theſe thoughts, I had wandered into a thick foreſt; and ſuddenly, looking up, I perceived before me an old man with a book in his hand; his forehead was ſomewhat wrinkled, and he was bald to the crown; a beard, white as ſnow, hung down to his girdle; his ſtature was tall, his cheeks were ſtill florid, and his eyes piercing; there was great ſweetneſs in his voice; his addreſs, though it was plain, was engaging; and I had never ſeen any perſon whoſe manner and appearance ſo ſtrongly excited veneration and eſteem. His name was *Termoſiris;* he was prieſt of Apollo, and officiated in a temple of marble, which the Kings of Egypt had conſecrated to that diety in the foreſt. The book which he held in his hand was a collection of hymns that had been compoſed to the honour of

the gods. He accoſted me with an air of friendſhip, and we entered into converſation. He related paſt events with ſuch force of expreſſion, that they ſeemed to be preſent, and with ſuch comprehenſive brevity, that attention was not wearied; and he foreſaw the future, by a ſagacity that diſcovered the true characters and diſpoſitions of mankind, and the events which they would produce. But, with all this intellectual ſuperiority, he was chearful and condeſcending; there is no grace in the utmoſt gaiety of youth that was not exceeded by *Termoſiris* in his age; and he regarded young perſons with a kind of parental affection, when he perceived that they had a diſpoſition to be inſtructed, and a love for virtue.

" He ſoon diſcovered a tender regard for me, and gave me books to relieve the anxiety of my mind: He called me his ſon, and I frequently addreſſed him as a father. ' The gods,' ſaid I, ' who have

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'deprived me of *Mentor*, have in pity ſuſ-
'tained me with thy friendſhip.' He was, without doubt, like *Orpheus* and *Linus*, irradiated by the immediate inſpiration of the gods. He often repeated verſes of his own, and gave me thoſe of many others who had been favourites of the muſes. When he was habited in his long white robe, and played upon his ivory lyre, the bears, lions, and tigers of the foreſt fawned upon him, and licked his feet; the ſatyrs came from their receſſes, and danced round him; and it might almoſt have been believed, that even the trees and rocks were influenced by the magic of his ſong, in which he celebrated the majeſty of the gods, the virtue of heroes, and the wiſdom of thoſe who prefer glory to pleaſure.

"*Termoſiris* often excited me to courage: He told me that the gods would never abandon either Ulyſſes or his ſon; and that I ought, after the example of *Apollo*, to introduce the ſhepherds to the acquaintance

of the muſes. *Apollo*, ſays he, diſpleaſed that Jupiter frequently interrupted the ſerenity of the brighteſt days with thunder, turned his reſentment againſt the Cyclops, who forged the bolts, and deſtroyed them with his arrows. Immediately the fiery exploſions of mount Ætna ceaſed; and the ſtrokes of thoſe enormous hammers, which had ſhaken the earth to the centre, were heard no more: Iron and braſs, which the Cyclops had been uſed to poliſh, began now to ruſt and canker; and Vulcan, quitting his forge, in the fury of his reſentment, haſtily climbed Olympus, notwithſtanding his lameneſs, and, ruſhing into the aſſembly of the gods, covered with duſt and ſweat, complained of the injury with all the bitterneſs of invective. Jupiter being thus incenſed againſt Apollo, expelled him from heaven, and threw him headlong to the earth: But his chariot, though it was empty, ſtill performed its uſual courſe; and, by an inviſible impulſe,

conti-

continued the ſucceſſion of day and night, and the regular change of ſeaſons to mankind. Apollo, diveſted of his rays, was compelled to become a ſhepherd, and kept the flocks of Admetus King of Theſſaly.

While he was thus diſgraced and in exile, he uſed to ſoothe his mind with muſic, under the ſhade of ſome elms that flouriſhed upon the borders of a limpid ſtream. This drew about him all the neighbouring ſhepherds, whoſe life till then had been rude and brutal, whoſe knowledge had been confined to the management of their ſheep, and whoſe country had the appearance of a deſart. To theſe ſavages Apollo, varying the ſubject of his ſong, taught all the arts, by which exiſtence is improved into felicity. Sometimes he celebrated the flowers which improve the graces of *Spring*, the fragrance which ſhe diffuſes, and the verdure that riſes under her feet: Sometimes the delightful evenings of *Summer*, her zephyrs that refreſh mankind, and

her dews that allay the thirſt of the earth; nor were the golden fruits of *Autumn* forgotten, with which ſhe rewards the labour of the huſbandman; nor the chearful idleneſs of *Winter*, who piles his fires till they emulate the ſun, and invites the youth to dancing and feſtivity. He deſcribed alſo the gloomy foreſts with which the mountains are overſhadowed, and the rivers that wind with a pleaſing intricacy through the luxuriant meadows of the valley. Thus were the ſhepherds of Theſſaly made acquainted with the happineſs that is to be found in a rural life, by thoſe to whom nature is not bountiful in vain: Their pipes now rendered them more happy than kings; and thoſe uncorrupted pleaſures which fly from the palace were invited to the cottage. The ſhepherdeſſes were followed by the Sports, the Smiles and the Graces, and were adorned with ſimplicity and innocence: Every day was devoted to joy; and nothing was to be heard but the chirping

chirping of birds, the whiſpers of the zephyrs that ſported among the branches of the trees, the murmurs of waters falling from a rock, or the ſongs with which the muſes inſpired the ſhepherds who followed Apollo. They were taught alſo to conquer in the race, and to ſhoot with the bow. The gods themſelves became jealous of their happineſs; they now thought the obſcurity of a ſhepherd better than the ſplendour of a deity, and recalled Apollo to Olympus.

"By this ſtory, my ſon, be thou inſtructed. Thou art now in the ſame ſtate with that of Apollo in his exile; like him, therefore, fertilize an uncultivated ſoil, and call plenty to a deſart; teach theſe ruſtics the power of muſic, ſoften the obdurate heart to ſenſibility, and captivate the ſavage with the charms of virtue. Let them taſte the pleaſures of innocence and retirement, and heighten this felicity with the tranſporting knowledge, that it is not dependent

pendent on the caprice of fortune. The day approaches, my ſon, in which the pains and cares that ſurround a throne will teach thee to remember theſe wilds with regret.

" Termoſiris then gave me a flute, the tone of which was ſo melodious, that the echoes of the mountains, which propagated the ſound, immediately brought the neighbouring ſhepherds in crowds about me; a divine melody was communicated to my voice, I perceived myſelf to be under a ſupernatural influence, and I celebrated the beauties of nature with all the rapture of enthuſiaſm. We frequently ſung all the day in concert, and ſometimes encroached upon the night. The ſhepherds, forgetting their cottages and their flocks, were fixed motionleſs as ſtatues about me, while I delivered my inſtructions; the deſart became inſenſibly leſs wild and rude, every thing aſſumed a more pleaſing appearance, and the country

itſelf

itſelf ſeemed to be improved by the manners of the people.

" We often aſſembled to ſacrifice in the temple of Apollo, at which Termoſiris officiated as prieſt; the ſhepherds wore wreaths of laurel in honour of the god, and the ſhepherdeſſes were adorned with garlands of flowers, and came dancing with baſkets of conſecrated gifts upon their heads. After the ſacrifice, we made a rural feaſt. The greateſt delicacies were the milk of our goats and ſheep, and ſome dates, figs, grapes, and other fruits, which were freſh gathered by our own hands; the green turf was our ſeat; and the foliage of the trees afforded us a more pleaſing ſhade than the gilded roofs of a palace. But my reputation among the ſhepherds was completed by an accident: An hungry lion happened to break in among my flock, and began a dreadful ſlaughter, I ran towards him, though I had nothing in my hand but my ſheep-hook. When

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he ſaw me, he erected his mane, he began to grind his teeth, and to extend his claws; his mouth appeared dry and inflamed, and his eyes were red and fiery. I did not wait for his attack, but ruſhed in upon him, and threw him to the ground; nor did I receive any hurt; for a ſmall coat of mail that I wore as an Egyptian ſhepherd defended me againſt his claws. Three times I threw him, and he roſe three times againſt me, roaring ſo loud that the utmoſt receſſes of the foreſt echoed; but at laſt I graſped him till he was ſtrangled: And the ſhepherds, who were witneſſes of my conqueſt, inſiſted that I ſhould wear his ſkin as a trophy.

"This action, and the change of manners among our ſhepherds, was rumoured through all Egypt, and came at length to the ears of Seſoſtris: He learnt that one of the two captives who had been taken for Phenicians, had reſtored the golden age in the midſt of deſarts which were ſcarce habitable,

habitable, and desired to see me; for he was a friend to the muses, and regarded, with attention and complacency, whatever appeared to be the means of instruction. I was accordingly brought before him: He listened to my story with pleasure.—From this time Sesostris treated me with a tender friendship, and resolved to send me back to Ithaca, in a fleet that should carry troops sufficient to deliver Penelope from all her suitors. This fleet was at length ready to sail, and waited only for our embarkation. I reflected with wonder upon the caprice of fortune, who frequently most exalts those whom, the moment before, she had most depressed.—Telemachus Book II."

"The river Betes flows through a fertile country, where the air is always temperate, and the sky serene. This river, which gives name to the country, falls into the ocean near the pillars of Hercules,

cules, not far from the place where the ſea heretofore breaking its bounds ſeparated the country of Tarſis from the vaſt continent of Africa. This region ſeems to have preſerved all the felicity of the golden age. In the winter the freezing breath of the north is never felt, and the ſeaſon is therefore mild; but in ſummer there are always refreſhing gales from the weſt, which blow about the middle of the day, and in this ſeaſon, therefore, the heat is never intenſe; ſo that ſpring and autumn, eſpouſed as it were to each other, walk hand in hand through the year. The vallies and the plains yield annually a double harveſt; the hedges conſiſt of laurels, pomgranates, jeſſamines, and other trees, that are not only always green, but in flower; the mountains are covered with flocks, whoſe wool for its ſuperior fineneſs, is ſought by all nations*. As they carried on

* This part of the appendix is nearly the account given by the ancients of Spain.

on no foreign trade, they had no need of money; they were almoſt all either ſhepherds or huſbandmen; for as they ſuffered no arts to be exerciſed among them, but ſuch as tended immediately to anſwer the neceſſities of life, the number of artificers was, conſequently, ſmall; beſides, the greater part even of thoſe that live by huſbandry, or keeping of ſheep, are ſkilful in the exerciſe of ſuch arts as are neceſſary to manners ſo ſimple and frugal. The women are employed in ſpinning the wool, and manufacturing it into ſtuffs that are remarkably fine and white; they alſo make the bread, and dreſs the victuals, which coſts them very little trouble, for they live chiefly upon fruits and milk, animal food being ſeldom eaten among them; of the ſkins of their ſheep they make a light ſort of covering for the legs and feet, with which they furniſh their huſbands and children. The women alſo make the habitations which are a kind of

tents, covered either with waxed ſkins, or the bark of trees; they make and waſh all the clothes of the family, and keep their houſes in great neatneſs and order; their clothes indeed are eaſily made, for, in that temperate climate, they wear only a piece of fine white ſtuff, which is not formed to the ſhape of the body, but wrapped round it ſo as to fall in long plaits, and take what figure the wearer thinks fit. The men cultivate the ground and manage their flocks, and the other arts which they practice, are thoſe only of forming wood and iron into neceſſary utenſils; and of iron they make little uſe, except in inſtruments of tillage. The huſband manages affairs without, and the wife within; ſhe provides for his refreſhment at his return, and ſeems to live only to pleaſe him:—ſhe gains his confidence, and as ſhe charms him yet more by her virtue than her beauty, their happineſs is

ſuch

ſuch as death only can deſtroy.—Telemachus, Book VIII."

" Huſbandmen are always rich in proportion to the number of their children, if their prince does not make them poor; for their children afford them ſome aſſiſtance even from their infancy; the youngeſt can drive the flock to paſture, thoſe that are further advanced can look after the cattle, and thoſe of the third ſtage can work with their father in the field. In the mean time, the girls aſſiſt the mother, who prepares a ſimple but wholeſome repaſt for thoſe that are abroad, when they return home fatigued with the labours of the day; ſhe milks her cows and her ſheep, and the pails overflow with longevity and health; ſhe brings out her little ſtores, her cheeſe, and her cheſnuts, with fruits that ſhe has preſerved from decay; ſhe piles up the ſocial fire, and the family gathers around it; every countenance

brightens with the ſmile of innocence and peace; and ſome rural dittay diverts them till the night calls them to reſt. He that attended the flock returns with his pipe, and, when the family is got together, he ſings them ſome new ſong that he has learned at the neighbouring village. All the ſufferings of labour end with the day; the poppies, which at the command of the gods are ſcattered over the earth by the hand of ſleep, charm away every care; ſweet enchantment lulls all nature into peace, and the weary reſt without anticipating the troubles of to-morrow.—The ſtate of huſbandry being no longer wretched, will be no longer contemptible, the plough, once more held in honour, will be guided by the victorious hands that have defended the country; and it will be no leſs glorious to cultivate a paternal inheritance in the ſecurity of peace, than to draw the ſword in its defence when it is endangered by war. The whole country

will

will bloom around you; the golden ears of ripe corn will again crown the temples of Ceres: Bacchus will tread the grapes in rich cluſters under his feet, and wine more delicious than nectar will flow from the hills like a river: The vallies will reſound to the ſong of the ſhepherds, who, diſperſed along the banks of a tranſparent ſtream, ſhall join their voices to the pipe; while their flocks ſhall frolick around them, and feaſt upon the flowery paſture without fear of the wolf.—Telemachus, Book XII."

No. II.

" AS the writings of greateſt antiquity are in verſe, ſo, of all ſorts of Poetry, Paſtorals ſeem the moſt ancient, being formed upon the model of the firſt innocence and ſimplicity; which the moderns, better to diſpenſe themſelves from imitating, have wiſely thought fit to treat as fabulous and impracticable; and yet they, obeying the unſophiſticated dictates of nature, enjoyed the moſt valuable bleſſings of life; a vigorous health of body, with a conſtant ſerenity, and freedom of mind, whilſt we, with all our fanciful refinements, can ſcarcely paſs an autumn without ſome acceſs of a fever, or a whole day not ruffled by ſome unquiet paſſion. He was then not looked

looked upon as a very old man, who reached to a greater number of years, than in theſe times an ancient family can reaſonably pretend to; and we know the names of ſeveral, who ſaw and practiſed the world for a longer ſpace of time than we can read the account of in any entire body of hiſtory. In ſhort, they invented the moſt uſeful arts, Paſturage, Tillage, Geometry, Writing, Muſic, Aſtronomy, &c. whilſt the moderns, like extravagant heirs, made rich by their improvements, ungratefully deride the good old gentlemen who left them the eſtate.—We figure the ancient countrymen, like our own, leading a painful life, in poverty and contempt, without wit or courage, or education; but men had quite different notions of theſe things for the firſt four thouſand years of the world. Health and ſtrength were then in more eſteem than the refinements of pleaſure; and it was accounted a great deal more honourable to till the ground, or

keep

keep a flock of ſheep, than to diſſolve in wantonneſs and effeminate ſloth.—It is commonly known, that the founders of three of the moſt renowned monarchies in the world were ſhepherds. It ought not, therefore, to be matter of ſurpriſe to a modern writer, that *Kings*, the *ſhepherds of the people*, in *Homer*, laid down their firſt rudiments in tending their mute ſubjects, nor that the wealth of Ulyſſes conſiſted in flocks and herds; the attendants over which were in equal eſteem with the officers of ſtate in later times. And therefore Eumenes is called διος ὑφορβος in Homer; not ſo much becauſe Homer was a lover of a country life, to which he rather ſeems averſe, but by reaſon of the dignity and greatneſs of his truſt, and becauſe he was the ſon of a king, ſtolen away, and ſold by the Phenician pyrates.—Being therefore of ſuch quality, they cannot be ſuppoſed ſo very ignorant and unpoliſhed; the learning and good breeding of the world

world was then in the hands of ſuch people. He who was choſen by all parties to arbitrate ſo delicate an affair, as which was the faireſt of the three celebrated beauties of heaven, he who had the addreſs to debauch away Helen from her huſband, her native country, and a crown, underſtood what the French call by the too ſoft name of *gallanterie*: He had accompliſhments enough, how ill uſe ſoever he made of them.—If (ſays Mr Dryden) Mr F. * had peruſed the fragments of the Phenician antiquity, traced the progreſs of learning through the ancient Greek writers, or ſo much as conſulted his learned friend Huetius, he would have found (which falls out unluckily for him) that a *Chaldean ſhepherd* diſcovered to the Egyptians and Greeks the creation of the world—Nor does it appear (what he takes for granted) that

* Mr Fontenelle, who had made ſome pretty ſevere ſtrictures on Virgil's Eclogues.

that Virgil deſcribes the creation of the world according to Epicurus. This paſſage was taken from a ſong attributed to Apollo, who himſelf unluckily had been a ſhepherd; and he took it from another yet more ancient, compoſed by the firſt inventor of muſic, and at that time a ſhepherd too; and this is one of the nobleſt fragments of great antiquity: So that our Poet, with great judgment, here, as always, follows the ancient cuſtom of beginning their more ſolemn ſongs with the creation, and does it too moſt properly in the perſon of a ſhepherd."—Dryden's Preface to Virgil's Paſtorals.

No. III.

"The claſs of tackſmen occupy nearly the ſame rank in the Hebrides, as belongs to that of men of landed property in other parts of Britain. They are called gentlemen, and appear as ſuch; and obtain a title from the farm they hold, nearly in the ſame manner as gentlemen in other parts of the country obtain from their eſtates. Moſt of theſe tackſmen are in fact deſcended from a line of anceſtors as ancient and honourable as the proprietors themſelves, and therefore reckon themſelves equally entitled with them to the appellation of gentlemen. Theſe tackſmen were, for the moſt part, originally younger ſons of the proprietor himſelf, and obtained from

from their father leaſes of conſiderable tracts of ground, at a moderate rent, which was beſtowed on them in lieu of patrimony. The deſcendents of theſe have therefore, in general, been accounted as relations of the family of the proprietor, and were treated with a mildneſs that made them conſider their leaſes rather as a ſort of property, ſubjected to a moderate quit-rent to their ſuperior, than as a fair and full rent for land in Scotland. In the abſence of the proprietor, theſe perſons acquired a weight and influence in the country which was very great; ſo that the proprietor, if he had been diſpoſed, would have found it a very difficult matter to cruſh them. And, as they found always means to bring the factor to favour their intereſts, they have been able to continue their ſway till the preſent moment, after moſt other veſtiges of the feudal power have fallen into diſrepute."—Illuſtrations

of

of Report to the Lords of the Treaſury of Facts collected in a Tour to the Hebrides, by James Anderſon, L. L. D. F. R. S. F. S. A. Scot. &c. Letter H. p. 163.

No. IV.

" A practice has lately been endeavoured to be introduced, of uſing tacks for ſome hundreds of years, in place of feu-contracts, and has been ſtrongly recommended by modern improvers *. As theſe tacks have not been taken notice of by any writer on the law, it may be proper to ſay a few words on the legality and expediency of them. Tacks are, like other contracts, in their own nature, perſonal rights, and conſequently ineffectual againſt ſingular ſucceſſors (or purchaſers). By

* The principal argument uſed by them is, that they are more eaſily conveyed, and at leſs expence, the contrary of which appears from theſe obſervations.

By act of parliament 1449, C. 17. they were, for the encouragement of agriculture, declared effectual to the tackſman for the full term of their endurance, into whoſe hands ſoever the lands might come. To give a written tack the benefit of the ſtatute, it muſt mention the tack-duty; which muſt not be eluſory; it muſt be followed by poſſeſſion, which ſupplies the place of ſymbolical poſſeſſion by ſeiſine: But, if the ſetter is diveſted of the property before the term of the tenant's entry, the tack is not good againſt a ſingular ſucceſſor. If it is granted to perpetuity, it has not the benefit of the ſtatute, though it may be good againſt the granter and his heirs. A term nearly equal to perpetuity is alſo liable to great objections. It is an incumbrance not to be known from ſearching the records. If doubtful laws ought to receive that interpretation which ſuits beſt with the intention of the lawgivers, there is little room to think the legiſlature

had in view tacks of this kind at making the act 1449. If the practice upon this act is to have any weight, what weight is to be laid upon a practice not introduced till 300 years afterwards? In ſhort, theſe tacks ſeem to reſt ſolely upon the deciſions. 'A tack granted for the ſpace of 'nineteen years, and, after that, for other 'nineteen years, and ſo forth, to the num-'ber of 1140 years, was found by the 'Court of Seſſion to be ineffectual againſt 'the crown, coming in right of the heri-'tor, who was forfeited, although it might 'have been good againſt the heirs of the 'granter; and the term of endurance, by 'conſent of the King's counſel, was re-'ſtricted to nineteen years after Whitſun-'day 1765. This deciſion was reverſed 'by the Houſe of Lords, and the tack ſu-'ſtained againſt the crown for the whole 'term of endurance;——Dec. 6. 1758, 'King's Advocate *contra* Fraſer of Ballen-'drum. The Lords (of Seſſion) ſuſtained

'a

'a tack for 1260 years; June 27. 1760, 'Irvine and Forſyth *contra* Knox and Ar-'rot.—A tack granted for two nineteen 'years, with an obligation on the granter, 'his heirs and ſucceſſors, to renew it after 'that term, from nineteen years to nine-'teen years, in all time coming, upon the 'tenant's paying a certain ſum as graſſum 'at each renewal was found binding a-'gainſt a ſingular ſucceſſor in the lands; 'Nov. 17. 1763, Wight *contra* Earl of 'Hopetoun; Dictionary, Vol. iii. p. 423. '*voce* Tack.' We find, however, under the words *Perſonal Objection*, in the ſaid Dictionary, that the laſt mentioned tack was expreſsly excepted from the warran-dice in the conveyance to the ſingular ſucceſſor, and that the Lords 'found he 'was barred, *perſonali exceptione*, from ob-'jecting to the obligation in the leaſe, and 'that he was obliged to grant a new leaſe 'in terms thereof, and to renew the ſame 'at the expiry of every nineteen years, on

'payment of the ſtipulated graſſum; Fac. 'Collec. Nov. 17. 1763, Wight *contra* 'Earl of Hopeton.' This laſt mentioned deciſion does not appear, therefore, of much weight. It ſeems rather to leave the matter doubtful. It is not, at any rate, a ſingle deciſion or two that conſtitutes law, further than to bind the litigants in that particular caſe, or theſe caſes. It is only an uniform tract of deciſions which are commonly conſidered as ſhowing what is our cuſtomary law. In the caſe of a village, the right is underſtood by all parties to be equal to perpetuity, otherwiſe the queſtion would be at an end, as no perſon would accept of the right conſidered in any other light. An aſſignation on ſtamped paper is neceſſary to the tranſmiſſion of tacks as well as of feu-contracts: When the tack is aſſigned, according to the preſent practice, it muſt be narrated; and in a conveyance by the aſſignee, or tranſlation thereof, both the tack and aſſignation muſt be

be narrated; and ſo on to the end of the ſpace mentioned (*ex. gr.* 999 years), as every perſon's right muſt be ſo clear as to trace it to the firſt link of the chain. By theſe means the laſt of theſe conveyances may conſiſt of ſome hundreds of pages. Every tranſmiſſion muſt be followed by poſſeſſion, or by ſome publication, by which the conveyance may be made known; as intimation by proceſs, by inſtrument of intimation to the parties concerned, or inſtrument of poſſeſſion and regiſtration; that ſo third parties may not be enſnared by latent or private conveyances: And becauſe the adjudication of a leaſe is a public and judicial act of the ſupreme court, transferring the right of the tack to the adjudger, a creditor adjudging that right from the tackſman before the tackſman's voluntary aſſignee had obtained poſſeſſion upon his conveyance, is preferable to the aſſignee. As it is not, however, clearly laid down in the law-books what publication

tion is neceſſary; even this may cauſe infinite diſputes. Beſides, a tack does not give any ſecurity againſt the ſuperior, when the fee opens to him through the fault of the letter, the tack not being capable of confirmation. In the caſe of a feu-contract, it may be aſſigned before infeftment, and then infeftment taken and regiſtered; which gives a complete right, and then the aſſignee may diſpone; the diſponee may be infeft, or aſſign, and the aſſignee be infeft, which infeftment being regiſtered makes a complete right, and theſe, for forty years back, an undoubted progreſs, good againſt all the world. On a tack the wife cannot be heritably ſecured in a jointure; the tackſman cannot borrow money to carry on trade with equal to the value of his feu, and ſecure it heritably, keeping poſſeſſion of it at the ſame time on paying the intereſt. By the method of feu-contracts, the tranſmiſſions and incumbrances are clearly ſeen from the records. To gain

thoſe

thoſe ends, ſo attained by perſons having feu-contracts, and ſtill keeping the idea of property in their minds; theſe tackſmen would, in a century or two, execute many of their writings in the form of rights of property, as is evident from thoſe executed by the rentallers of Lochmaben, and thoſe in the village of Seaton, without abiding by their tacks; whereby a ſingular ſucceſſor might very readily, from the defect of their titles, appropriate their poſſeſſions to himſelf, and remove them, as was the caſe with the inhabitants of Seaton on the eſtate of Winton, decided in 1781. But, if theſe rights are to be allowed at all, where are they to ſtop? May they not, with the ſame propriety, be uſed in place of rights to whole farms held in feu? In which caſe, where is the ſecurity to our land rights ariſing from the records?—Little argument can be drawn from the act with regard to improvement of tailzied eſtates, which enacts, 'That proprietors of entailed eſtates

'may

'may grant building leaſes for any num-
'ber of years not exceeding ninety-nine,
'provided that a leaſe of no more than five
'acres be granted to one perſon; and that
'the leaſe contain a condition, that it ſhall
'be void, if one dwelling houſe at leaſt, not
'under the value of L. 10, be not built on
'each half acre, within ten years from the
'date of the leaſe, and if all the houſes
'built be not kept in tenantable repair;'
Abſtract act, 10th Geo. III.; Appendix to Erſkine's Inſtitutes, No. *7th*, *p.* 808. For the term allowed by this act is far from being equal to perpetuity; the moſt that can be contended for from it is, that tacks of a ſimilar nature ſhould *a fortiori* be granted of lands not tailzied: But as theſe leaſes derive their whole force from ſtatute, even this can hardly be granted. Theſe tacks will receive ſtill leſs ſupport from analogy to the Engliſh law, and practice of conveyance by *leaſe* and *releaſe*. Holdings there are aboliſhed. The *leaſe* is

granted

granted for a year. The ſtatute for tranſfering uſes into poſſeſſion ſupplies the place of actual poſſeſſion, or ſymbolical poſſeſſion by ſeiſine. The *releaſe* is like a *reſignation ad remanentiam*, or a *renunciation* of a *right of reverſion*. And if a practice ſimilar hereto ſhould ever be introduced into this part of the kingdom, the *releaſe* would, from the ſpirit of our law, require to be regiſtered. Upon the whole, it does not appear that thoſe long tacks are preferable, in any point of view, to feu-contracts."— *Supplement to Forms of Writings*, *p.* 306. *Obſervations on tack for* 999 *years*.

PART

PART II.

On the Practice of Paſturage, or Method of Managing Sheep Farms.

CHAP. I.

Of the Time of Entry to Sheep Farms; the Plants Sheep feed on; and the different Kinds of Paſture proper for them.

THE uſual term of entry to ſheep farms is near the end of the month of May, at old Whitſunday, when the old graſs is gone, and the new only little way riſen; when there is full time to provide

for the winter; when, if a farm is without ſtock, it is the propereſt ſeaſon for buying and putting one on; when, if there is too much ſtock, as will ſometimes happen, when one cannot get ſuch parts as are proper without buying the whole, the ſummer is moſtly to come, which is the time for ſelling and modelling it at pleaſure; for it is of the utmoſt conſequence not to overſtock; by attending ſufficiently to which, there may be a certainty of having the ſheep good, and in a great meaſure of ſecuring them from any riſk of loſs.

It will be proper now to give ſheep all the liberty that circumſtances will admit of, this being the ſeaſon that meadow and corn land muſt be kept, as the ground is bare, and at the ſame time it is the only time for bringing forward both ewes and lambs. About this time alſo it will be adviſeable to ſeparate the yeld (that is the he or barren) ſheep from the ewes, and herd them upon the higheſt and coarſeſt part of the

the ground, if the farm ſuits for this method. Great care muſt be taken that the ewes go eaſy in this ſeaſon, as they are yet weak, and the lambs tender. Now is the time when their nature will ſeem to change with the ſeaſon, and they will forſake their bields (or ſhelters) where they lodged, and were defended from ſtorm in the winter on the low grounds, and go out to feed and lie at night on the mountain tops; but let not the herdſman or ſhepherd be too precipitate in ſetting them out, if their walk is long or ſteep; for as the heat of the ſummer and their ſtrength increaſes, ſo will their inclination for going to the hill-tops increaſe, as, although there is great art in herding them, unleſs it be ſeconded by nature, it will not do ſo well.

The outgoing tenant, generally about the expiry of his leaſe, raiſes the ſtock to the greateſt number he can do with ſafety, and ſells it to the incoming tenant, who finds it his intereſt to give a greater price

than can be got for it otherwiſe; and the outgoing tenant gets better payment than by ſelling in detached parcels. When a tenant comes into a farm, and cannot agree with the former tenant for the ſtock, and the ſtock of the farm he leaves will not anſwer, or when there has been no former ſheep-ſtock on the farm, it may be ſtocked by the following methods, according to the kind of ſtock intended to be kept, whether a ewe-ſtock or a wedder-ſtock. A ewe-ſtock is where people ſell off yearly all the lambs, except what are neceſſary for keeping up the ſtock: A wedder-ſtock is where, beſides ewe-lambs to keep up the ſtock, a number of wedder-lambs are kept and ſold in hogs, or dinmonts, or kept till three years old, called old wedders; in which laſt caſe there will, when once this gets in, be always three ages. If, therefore, a ewe-ſtock is intended, it will be neceſſary to buy in ewe-hogs at Whitſunday, which is about the uſual time of ſale thereof,

thereof, from lands nearly of the ſame nature; and care muſt be taken, if it can be known, that they are free of hereditary diſeaſes. Theſe hogs, which are gimmers againſt the following ſeaſon of taking the ram, will bring lambs againſt the next ſpring; ſo that only one ſeaſon will be loſt. If the farm lies low in the country, fogging ewes off higher lands will bring a breed; but the firſt is the moſt eligible, as a young ewe's lamb makes the beſt ſheep. If the proper ſtock of the farm were thirty ſcore, if the farmer intended to act upon a very frugal plan, he might buy twenty ſcore at his entry, which would probably bring, in any ordinary ſeaſon, fifteen ſcore of lambs, of which there might be ſeven ſcore of he-lambs, and about two ſcore of ſmall ewe-lambs, to ſell; the remaining ſix ſcore, after being wintered properly, would go to increaſe the ſtock; and thus a ſtock might be got into by degrees. Where wedders

are kept, it will be neceſſary to buy a quantity of ewe and wedder hogs; the wedders are kept till the age they are wanted to be ſold at, whether at two or three years old, when dinmonts or old wedders. The following year it will be neceſſary to buy a quantity of the ſame kind as the year before, to bring the quantity neceſſary for ſale in ſucceſſion: The lambs of thoſe bought as ewe-hogs, along with the wedders, when gimmers, will nearly produce the next age wanted for ſale. As to the number to be bought, there might be twenty ſcore the firſt year, and ten the reſt. But this of having to ſtock farms altogether at entry from different places, though proper to be mentioned, is very ſeldom neceſſary to be put in practice in ſheep countries, as the mutual intereſt of the outgoing and incoming tenant generally makes them deal with one another.

It will be unneceſſary to enter into a detail

detail of the particular plants upon which ſheep live, as they, as well as the moſt part of animals, are endowed with an inſtinctive faculty of readily diſtinguiſhing whether the food that is preſented to them be noxious or ſalutary, though mankind have no ſuch faculty; beſides the names given by writers on botany would often be unintelligible to the practical farmer. Plants alſo are ſometimes called by different names in different places; and for many of which it is not eaſy to find any technical term either in our language, or in that in which many of the treatiſes on botany are written: As an illuſtration hereof, in *Wight's preſent State of Huſbandry*, deer-hair is mentioned as a plant or ſpecies of graſs on which ſheep feed; and though *Dr Anderſon*, in his *Eſſays on Agriculture and Rural Affairs*, has given a long liſt of ſuch plants as are eaten by oxen, goats, ſheep, &c. to which I refer the curious reader; yet there

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is no mention therein, ſo far as I have been able to diſcover, of deer-hair. *Sprat* again, is a kind of graſs well known in many parts of the country, for which, it is believed, no name is given in the former of theſe performances, in ſpeaking of ſheep; the ground which produces it being there called *bog*, or marſhy ground, though *bog* again is uſed in Ireland for *moſs*, in many places in Scotland for *meadow*, and by Mr Wight here for *hilly ground*. Naturaliſts have indeed advanced that there are no fewer than 300 different kinds of moſs; it may therefore be thought too laborious a taſk to give an account of the different ſpecies of plants connected with paſturage, and that it is more prudent to leave it where we ſet out by referring to that inſtinctive faculty in animals of diſtinguiſhing whether food is noxious or ſalutary; or at leaſt to write in ſuch general terms as may be beſt underſtood by the practical

practical farmer, and to reſolve it into the more obvious and diſcernible cauſes of ſituation, climate, and ſoil, which produce kinds of food, and are attended with other circumſtances more favourable for paſturing flocks than black cattle. It may be obſerved, that different grounds ſeem naturally to have been adapted to different purpoſes, and that mountains are principally calculated for ſheep, as is evident from this country, and from Spain, Perſia, and the Andes in America. High grounds are unfit for agriculture, and cannot be fully ſtocked with black cattle. Sheep, from the warm covering with which nature has furniſhed them, and being always expoſed to the air, can ſuffer a greater degree of cold; the intenſeneſs of which, in winter, is provided againſt by their coming to the lower part of the hills, or to relief paſture in a lower part of the country. Marſhy ſwampy grounds, and wet clay ſoils, in a flat unſheltered country, are hurtful to,

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and ſevere upon ſheep, but will paſture black cattle. As to the article of food, deer-hair, ſprat, and ling, are paſtured by them in ſummer. Moſs and heath, or heather, in winter, and ſprat too, then, partly.

CHAP.

CHAP. II.

Of Marking the Lambs, Caſtrating, or Cutting them, and chooſing the Lambs for Breeding.

WHERE there are ſuch quantities of ſheep as in Scotland, it is requiſite that they have ſome mark to diſtinguiſh thoſe of one farm from another. This is done by cutting their ears in different ways; and alſo ſometimes, in addition thereto, by burning them over the noſe with the firſt letter of the name of the farm, or of the maſter's ſurname, with a red hot iron.

As among ſheep there are more males than

than are wanted for propagation, it is neceſſary part of them ſhould be cut, or caſtrate; theſe we call wedders; they are more eaſily fed, and make finer mutton than rams. This operation, and that of marking the lambs in the ear, are generally performed both at one time, when they are about ſix weeks, not exceeding two months old; and the burning when they are weaned. The cutting of the lambs is performed ſeveral ways; ſome cut the top quite off the *ſcrotum*, or cod, and ſo draw out the teſticles. Some cut the ſcrotum on each ſide, others give it two cuts behind, that is on the under ſide, when the lamb is holden up with its back to the breaſt of the perſon holding it, and its feet together. This is done by taking the ſcrotum betwixt the knife and the operator's thumb, and cutting only the one ſide till it comes to the top. The laſt of which methods is thought the beſt. The firſt is againſt wedders when they are fat; it makes

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the ſcrotum leſs; and the ſecond way, if any matter ſhould gather, by being cloſe at the top it does not get out: The laſt is free from both theſe evils; but the more critical part is the drawing of the teſticle right, to hold and draw it in ſuch a way as not to break the ſtring, and to hold well back with the hand, ſo as no part of them may be ſtretched; all which may be done by practice and attention.

Ewe-lambs are alſo ſometimes cut like heifers, and ridglings in a manner ſomewhat ſimilar; but it is a nice operation, and therefore not much practiſed.

Where lambs are ſubject to die by cutting, the younger it is done the better, or where they are ſold for killing in the harveſt or end of the ſummer; for about Lammas they ſhoot out in ſize, and turn worſe in fleſh, and the wedders better; ſo the cutting depends on the ſeaſon they are meant to be ſold: For where they are in no danger of dying, and are to be ſold for

ſtocking, and to be ſhown in rough ſheep-markets, they need not be cut ſo young, as their being older makes their horns bigger, which ſets out wedders greatly.

It muſt not be forgot, however, to keep ſome of the beſt he-lambs for breeding; the chooſing of which depends greatly on fancy: Some like white faces, ſome black, ſome gray, ſome brown; ſome big horns, ſome little, ſome none; ſome with fine wool, ſome with coarſe, ſome with long, and ſome thick wool; ſome the longeſt lambs with long tails, and ſome the thickeſt with ſhorter tails. I ſhould imagine the method of chooſing rams depended on the nature of the land they were to go on, and the kind of ſtock kept, with the ages and manner in which they were meant to be ſold. There are ſome properties eſſential to rams or ſheep of any kind, whatever land they are on, or whatever kind are kept; let the ram be broad of the back, high and broad

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at the ſhoulders, thick of the neck, broad as well as long of the head, thick of the legs, the tail not very ſhort, and all of a breadth, and the wool thick, which is the only thing that makes much of it, and defends beſt from the cold. If the lambs are ſold for ſtocking, or if rough wedders are to be ſold of any age, keep the rams horned, with long wool of the kind they are of, which ſets them out greatly, with black faces, or bright black and white, but no white, brown, or dun faces. If the grazier means to ſell his ſheep for immediate killing, he will avoid black necks, and all black ſpots. I have always thought thoſe that were all white fattened beſt; beſides theſe ſpots are againſt the wool. In chooſing tup-lambs for breeding, it will not be always the beſt-looking lamb at marking, will turn out beſt; for inſtance, if an old ewe feed in the low ground of the farm, or on a ſpot of particular rich paſture, this will make a good-looking

lamb, till about the month of Auguſt or September; but it will not then improve equally with that of a younger ewe. The lamb of a young ewe which, owing to worſe paſture, is, in the early part of the ſeaſon, not ſo good as that above mentioned, will continue to improve more in the winter and following ſeaſons, both in ſize and in the wool.

Popular opinion, it is believed, has taken many things for granted, both in regard to ſheep and wool, upon too ſlight grounds *. It has been thought a cold climate rendered the wool coarſe, and a warm one made it finer. The contrary has alſo been maintained from a variety of plauſible reaſons. The fact, of coarſe wool being found in cold climates poſſibly is partly owing to the choice of ſuch for breeding as were thought to

* For illuſtration of ſeveral of the obſervations which follow, ſee *Dr Anderſon's Eſſays on Huſbandry and Rural Affairs*; though we cannot always agree with him.

to ſtand ſtorm beſt; whereas it is not ſufficiently aſcertained that the coarſe ſtands better than finer.

It does not appear to be aſcertained that paſture has any effect upon the wool.—Coldneſs of climate, and coarſeneſs of paſture, going frequently together, may have cauſed the notion of the coarſeneſs of the wool being thereby occaſioned, in place of being the effect of choice, for the reaſon above mentioned.

Many are diſpoſed to connect in their minds the idea of fineneſs of quality of the wool, with ſmallneſs of ſize in the animal, although it does not appear we are yet poſſeſſed of facts ſufficient to confirm their conjecture. Neither are we to conclude that largeneſs of ſize neceſſarily produces fine wool. Others are diſpoſed to imagine that the length of the wool is, in ſome meaſure, connected with the ſize of the ſheep, thinking that ſmall ſheep have always ſhorter wool than thoſe that are lar-

ger: But neither is this confirmed by experience.

Others again are much diſpoſed to think that fineneſs of ſtaple is, in a great meaſure, connected with the ſhortneſs thereof. But neither do we here meet with the facts ſufficient to confirm their hypotheſis. The longeſt wool upon the ſame fleece is indeed generally the coarſeſt part of it, from whence, in all probability, this opinion has been derived.

Others think that fineneſs of wool is connected with delicacy of conſtitution in the animal. But this we have no reaſon to believe from experience. The moſt thriving ſheep have always the fineſt wool.

Others think that thoſe ſheep that carry fine wool have neceſſarily a thinner fleece, and conſequently leſs wool in proportion to their ſize than ſuch as yield coarſer wool. It has been found by experience, that the ſheep in a flock which had the fineſt

fineſt wool, yielded likewiſe the moſt weighty fleeces in proportion to their ſize, in the *ratio* of at leaſt three to two.

As one or more properties may be found connected in one breed, and another in another breed; and as theſe may be varied almoſt to infinity, we cannot be too wary in forming general concluſions.

From ſuch a diverſity we need not deſpair of carrying on improvement to any extent, if we keep our eyes open, and improve every advantage fortune throws in our way. We muſt, on the other hand, be on our guard in knowing well the kinds we introduce, leaſt, along with ſome properties, we introduce greater faults; for inſtance, hereditary diſeaſes, ſuch as the rickets. But we ſhould diſtinguiſh ſuch diſeaſes as are hereditary from thoſe which are owing to the land, and not to the animal, which in healthy paſture, is in general a healthy animal.

In

In ſtudying improvement, the ſafeſt method is taking the beſt lambs for breeding in one's own flock, or in the neighbourhood, from a place more ſtormy rather than more temperate, if not very ſimilar, as has been found from repeated experiments.

CHAP.

CHAP. III.

Of Sheering or Clipping; taking Care of the Wool, Selling, and Manufacturing it; and of Draughting the Sheep then proper to be draughted.

IN the courſe of managing ſheep-farms, the ſheering of the ſheep comes next; the time for doing which cannot be well aſcertained; it depends partly on the ſeaſon, and partly on the land they go on. When the night is at the ſhorteſt, is about the time, if the ſheep be ready for it; that is, if the wool be properly riſen. This is the time that yeld ſheep are ready in mountainous or muir countries; and milk ewes are two or three weeks longer. But there

there are many places where all the ſtock muſt be ſhorn at one time. Where they go all together, and are ſo wild that they cannot be ſeparated without great confuſion, or where the farms are very mountainous and large, that they cannot be got together without diſturbing them much; in ſuch caſes, it is better to take them all at once. If the weather is dry and warm, there is no danger of ſheering yeld ſheep as ſoon as they will do cleverly; but it will not do to be ſo haſty with milk ewes; for, if the new wool is ſhort, then they muſt be very bare when they are ſhorn, as it muſt always be cut betwixt the new and the old, rather on the new; and thoſe that are bareſt are leaneſt; and when lean the ſkin is thin; and, if the weather is ſtormy, it will do them much harm. It alſo takes the milk from them, and that ſets back the lambs. When this piece of work is to be done, the ſheep are put into the reeve, pen, or folds; the ſhepherds ſit on ſeats of

turf

turf, ſufficient to hold the ſheep before them, and uſe ſheers or ſciſſars made for the purpoſe. After ſheering the parts that cannot be got at when they are tied, they untie them, and ſheer the reſt; and it behoves the ſhepherd to guide the ſheers wiſely, ſo as not to cut the ſkin, or run the points of the ſheers into it, which often coſts the creature its life. If any ſlight cut ſhould happen, a little tar put on it will help to heal it, and prevent the flies from hurting it. Nor is the wool to be forgot. To make it better, it is cuſtomary, in ſome places, to waſh the whole flock in a river previous to ſheering *. Where the ſheep are

* ——In one diffuſive band
They drive the troubled flocks, by many a dog
Compell'd, to where the mazy running brook
Forms a deep pool; this bank abrupt and high,
And that fair ſpreading in a pebbled ſhore.
Urg'd to the giddy brink, much is the toil,
The clamour much of men, and boys, and dogs,
Ere

are very numerous and wild, this cannot be got done; and it is imagined, in this caſe,

Ere the ſoft fearful people to the flood
Commit their woolly ſides. And oft the ſwain,
On ſome impatient ſeizing, hurls them in.
Embolden'd then, nor heſitating more,
Faſt, faſt, they plunge amid the flaſhing wave,
And panting labour to the fartheſt ſhore;
Repeated this, till deep the well-waſh'd fleece
Has drank the flood, and from his lively haunt
The trout is baniſh'd by the ſordid ſtream,
Heavy, and dripping, to the breezy brow,
Slow move the harmleſs race, where as they ſpread
Their ſwelling treaſures to the ſunny ray,
Inly diſturb'd, and wond'ring what this wild
Outrageous tumult means, their loud complaints
The country fills, and toſs'd from rock to rock,
Inceſſant bleetings run along the hills.
At laſt, of ſnowy white, the gather'd flocks
Are in the wattled pen innumerous preſs'd,
Head above head; and rang'd in luſty rows
The ſhepherds ſit, and whet the ſounding ſheers.
The houſewife waits, to roll the fleecy ſtores.

caſe, would be hurtful, particularly to the ewes and lambs; beſides, the cold water be one great article in ſcouring wool. Some others are neceſſary, as it will not alone bring out tar, with which, as will be afterwards obſerved, they muſt be ſalved or ſmeared in many places *.

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A ſimple ſcene, yet hence Britannia ſees
Her ſolid grandeur riſe: Hence ſhe commands
Th' exalted ſtores of every brighter clime,
The treaſures of the ſun without his rage.

* For ſcouring or waſhing white wool, (i. e: unſalved or unſmeared), pour urine upon it till it be all wet; let it remain till it be moſtly dripped out of it, (which it may be into ſomething to receive it, and uſed over again, which will make leſs do a quantity); then waſh it in running water; lay it together in a heap for twenty-four hours; then ſpread it on a dike to dry. For ſalved or ſmeared wool, warm water till it be nearly boiling; mix it with urine, three or four Scots pints to a Scots ſtone of wool. Let the mixture

At ſheering the ſheep, the wool muſt be kept as clean as poſſible, carefully folded up, and put into a houſe, where it will be dry both above and below, for it is eaſily wet, and ill to dry again, and a very little wetneſs diſcolours it. After ſheering, it is ſold, except what is wanted for the family, to a wool merchant, who carries it to the wool-market. The great clothiers go through the whole buſineſs, by giving it out to be ſpun, or elſe by buying it already ſpun, and then to be woven. In many places of Scotland, in the farm-houſes and others, the women ſort and ſpin what is neceſſary for the ordinary wear of

mixture be ſo warm, that one, when the wool is put into it, can ſcarce hold his hand in it; tread it a minute or two; then waſh it in running water, as ſoon as poſſible, before it cool. Before ſcouring, it is proper to take off the hip-locks, being the ſoarceſt and tarrieſt, and thereby hurting the ſcouring of the reſt of the fleece. Theſe may be ſcoured afterwards by themſelves.

of the family of every kind, and the remainder for ſale. The only thing attended to in Spinning the laſt, is the quantity ſpun in a ſhort time, and the weight, (being ſold by weight). It is ſo far from being ſcoured by them, or the tar waſhed out of it, that a quantity of more tar and oil is often added to it, to make it weigh better. This is bought up by perſons employed to purchaſe it for Hawick, Kilmarnock, and other manufacturing towns. What is for the uſe of the family is given to a weaver, who is paid by the yard. As both ſpinners and weavers are occaſionally changed from one ſort to another, nay even from woollen to linen, and from linen to woollen, this is extremely prejudicial to their improvement. In England, there are, 1ſt, wool-ſtaplers, who buy it, and, after ſorting it, ſell it out in different kinds, as wanted, by which the kind wanted is got both cheaper and better. 2dly, Rough cloth-makers, who, with their family,

family, card, ſcribble, (or break), ſpin, and weave it. Their poſſeſſions are ſimilar to thoſe of our cottars. It is then carried to the cloth-hall and ſold. 3dly, and laſtly, The whole-ſale merchant, when commiſſioned by the retailer, gets it finiſhed in terms of the order. It is thus done better, and with leſſer capitals, than by clothiers, who, with great manufactories, go through the whole proceſs *. If this method were followed, and the work any way tolerably executed, there would be a conſiderable demand, as the greateſt demand is poſſibly for a ſecond or inferior ſort of cloth. To ſome it is indeed almoſt enough if it be bought cloth at all. Every perſon's ſituation, at any rate, does not admit of their having any part in manufacturing their own. This prejudice in favour of bought cloth ſhould be turned to

* A proper manufactory will take about L. 300 capital; a rough cloth maker only about L. 20.

to advantage. If even the ſale-yarn were managed as well as the perſons ſpinning it are capable of, and which would improve themſelves, and afterwards ſold to ſome perſon in the country, to weave and get died, and dreſſed, there would be a demand for it; and, at leaſt, the yarn itſelf would any way ſell conſiderably higher.

At the time of ſheering the ſheep, the maſter of the flock may know nearly what his ſales will be for the ſeaſon, except thoſe who have ſold rough ſheep, which happens before the ſheering; and even theſe may know how to provide for next year. At the marking of the lambs, before taken notice of, it is eaſy to know their number, by keeping the piece cut off one of the ears, and, when ſhorn, by numbering the fleeces. It is uſual, at this time, to put a mark on them with tar, and thoſe that are for ſale on a mark by themſelves. At which time they may number thoſe of each kind as they are marked or tarred, wed-

ders, yeld ewes, and rams. Their age is known by the caſting of their teeth. They have eight foreteeth, all in the under jaw. When they are fully one year old, they caſt the two in the middle, and the ſecond year the two next theſe; and ſo on. When they are four years old, the lamb teeth are all gone, and they have got a new ſet, which is known by their being bigger and broader than the firſt. They ſometimes have them all caſt at three years old; but it ſeldom happens. The better they are fed, eſpecially in the winter, the ſooner they caſt their teeth; the hogs, that is, the preceding year's lambs, when they are ſhorn, generally have the teeth caſten; but the new ones are not fully grown in muir-countries; and every year after in the ſame manner, till their mouth is full. When horned, eſpecially the rams, their horns acquire an additionai ring every year as long as they live. It may alſo, at this time of ſheering, not be amiſs to mark

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a few of the worſt of the milk ewes, another way than the reſt, as thoſe which have been lean one winter are apt to die the next; yet I do not approve of draughting all now that are meant to be put away in the year, as ſome do, and not to have a ſecond draught at the time of putting them away. Thoſe that were bad at the time of ſheering ſhould be put off at any rate; if they are grown fat, they will give the more money; and thoſe that are grown worſe, or even no better, ſhould be put off alſo: So, by draughting the ſtock twice, both thoſe that are bad, and thoſe which have been bad, will be got clear of.

When this buſineſs of ſheep-ſheering is over, lightly will the bleeting ewes run to the hills to meet their lambs, which, with impatience, wait their coming, and run ſtraight to where the well known voice leads them; but how ſurpriſed, when ſight and hearing ſo ill agree? It is curious to ſee them friſk about, and ſeem freighted at

their

their mothers, although much liker themſelves than before: They then apply to the ſenſe of ſmelling, which reconciles them *.

* This ſhows that Sterne, in his Triſtram Shandy, is perfectly right, when he ſays, inferior beings ſyllogize by their noſes.

CHAP.

CHAP. IV.

Of weaning Lambs, milking Ewes, draughting Lambs, and managing them through the Harveſt; and of draughting Ewes.

IT is now time to begin to keep graſs for the winter, I mean for the old ſheep; the graſs for the hogs, (for ſo they are called when they are ſix months old, till they are ſhorn next year), muſt be kept from about the 1ſt of June till the hogs are ſmeared or ſalved: One may be obliged to put them on the fence before that time; but ought not to let them get their liberty of the whole of it till then. The ſheep, being relieved of their burden, are much lighter, and do not warm ſo much by

by ſetting them out to the tops of the mountains. There are ſome farms where it may anſwer to have the yeld ſheep by themſelves before this, and from this time to let all go together; where the farm is not very long, or having two ſides much of a ſize, any of which cannot contain the ewes, and by a part being on each ſide they cannot have freedom to go to the heights to lie; in ſuch places as theſe they will be better to go all together. In any place where ſheep can go all out to the heights at night, or to the marches, if the march is at a height, and fall all in again to good paſture in the middle of the day; it is thought beſt, and they can then eaſieſt be kept off what of the ground is beſt for winter.

About the middle of July, or ſoon after, is the time for weaning the lambs, in ſome places;—it is only where the land is very good; where there is the beſt paſture for the lambs; or in low countries, where they

they are old; that weaning will do, and where it is the cuſtom to milk the ewes. It is likely this cuſtom has ariſen in the places of the country where they ſell off all the lambs, except a few ewe lambs to keep up the ſtock; and either finding the ewes better that wanted lambs, or although no better poſſibly, yet thought it was not giving them an equal chance, ſo weaned thoſe intended to be kept too, and let them ſhift for themſelves. Whether to get the milk of the ewes occaſioned the weaning of lambs, or if the weaning of lambs was the cauſe of milking ewes to relieve them of their burden, till it wore off by degrees, is not eaſy to determine; but it is probable the former was the caſe:—this is certain that the practice of milking ewes is greatly fallen off; which certainly is a loſs. In any place where the lambs are taken off in ſummer, it muſt undoubtedly be good for the ewes to be milked for a few weeks, and the profits ariſing from the milk will compenſate

penſate for the trouble. Where the ewes are milked they ought to be carefully herded on good paſture. They are much better with the pen or bught they are milked in to be made of bars or ſome kind of wood, than of turf or ſtone, as the latter are too warm, and do them harm if they happen to be throng.

The lambs being weaned, the next thing to be conſidered is the way of managing them through harveſt. There is no kind of flock more pleaſant to herd, yet none more difficult to do properly. If they be kept very cloſe together, and lie near one another at night, and always at one place, that place grows dirty, and a kind of foul graſs ariſes upon it, which is apt to make them die; or if they ſhould happen to be heated by the raſhneſs of the ſhepherd's dog, it may have the ſame effect upon them. If the ground is wet they will not do well, but will take ſore feet, and alſo grow leaner. If once they

begin to grow lean, and at the ſame time lying ſo near one another at night, a certain kind of tick or louſe, in appearance very like a bug, will breed on them, and increaſe every day. Again, if they are fed upon fine ſoft graſs, although they may do very well till the winter ſtorms come on, they will then ſtand it badly; the fine feeding makes them more tender, leſs induſtrious, and the blood fouler. The land for feeding lambs muſt be rather dry than otherways, and mixed with heather; and what is white ground, to bear hard graſs rather than ſoft, and abounding with brakes. The proper method of herding lambs that are ſoon taken off, (where there is ſome extent of land that will allow of it, and where the ſheep are uſed to particular hirſels or hefts), is to put them on the beſt graſs for a week or two at firſt, then to the higheſt land for about ſix weeks or thereby, as the weather anſwers; then to bring them down nearer their

winter paſture, to clean grounds; then change them every week or two till about the end of October; then ſalve or ſmear them, and give them afterwards the beſt graſs the ſtoremaſter has. Where the farm does not furniſh ground proper for ſummering the lambs, it is a common thing, in the highland part of Roxburghſhire, an extenſive grazing country, where this practice prevails, to take keeping for them even at the diſtance of 30 miles, a penny per week for each lamb is the ordinary price or graſs-mail: Beſides lightening the farm at a ſmall expence, it is imagined that ſummering lambs away on any coarſe land, where there is a mixture of heather and bent, is a good preventive for the ſickneſs or braxie.

If lambs are not weaned within Auguſt, it is not worth while afterwards;—as to its doing good or ill to the ewes, they may be taken off then any time that ſuits for the winter paſture.

In a farm where the paſture is very fine, or where it is ſoft and ſpraty, the ſheep are likely to be ſoft alſo, and the ewes to have much milk, there the lambs muſt be weaned; but if the place they are meant to be wintered in is too little to keep them in harveſt, or poſſibly lower in the country than where they have been reared, ſo that they may be in danger not to thrive; and if they cannot be kept on the low ground of the farm, where the old ſheep are to paſture in the winter without hurting them, then after keeping them ten days by themſelves, they muſt be put among the reſt of the ſtock. There are other places, where, if there is not a good place to keep the lambs by themſelves, they need not be weaned at all. Where the land is coarſe and partly moſſy, the milk goes moſtly off the ewes when it paſſes Lammas, and the lambs do them little hurt. It alſo prevents them from ſtraying, not to wean them.

Where wedders are reared, and kept till they are three years old, or even two, it will be neceſſary to ſell a part of the ſmalleſt lambs and ridglings. In ſtocks of that kind, where the farm is ſtonny, there will be ſome ſeaſons when all the lambs it breeds will be few enough to keep, or ſome times too few; yet it is ſtill right to ſell a few of the ſmalleſt, and buy better in their place; for they continue to be ſmall unleſs they want lambs ſeveral years, and even though they ſhould, their lambs are always ſmall, and they bring in a bad ſort. When they are a draughting, it is beſt not to be too anxious of keeping more wedders than ewes; for if this is the caſe, there will ſoon be a ſcarcity of ewes, and conſequently of lambs, and in courſe of wedders too, ſo by one time having too many, there will another time be too few. This is attended with two evils. When a tenant has many wedders, this gives the farm a character above what it deſerves; and

and another perſon may take it over his head to the tenant's hurt, and alſo his own. Again, where there are few, this gives the farm a worſe name than it deſerves, which may be againſt the tenant's credit, and likewiſe the proprietor's. Some may poſſibly think keeping many of both is beſt; but they muſt be aware of not keeping too many, otherwiſe they will find, to their coſt, the ſtock will draught itſelf. In running ſtocks, as they are ſometimes called, that is, ewes and wedders both, I have always thought that to have a ſcore of wedders after they are draughted and fit for the market, out of ten ſcore of ſheep, that is at an average one year with another, is as much as one need expect or aim at.

It will be proper for thoſe who have a piece of low ground in their farm, where they can fatten the ſheep that are for ſale, to put them on it about Lammas; and if it ſhall be too little for them all at once, to

put on one kind ſooner; firſt yeld ewes and wedders, if they are; and when theſe go off, draught or caſt ewes. In the draughting and putting off ewes in muir farms, it will not do well always to keep by one rule, that is, for inſtance, to ſell all the yeld ewes, which are paſt a certain age; and to ſell the ſame quantity of caſt ewes every year: When it is a bad ſeaſon, and there are a great number of yeld ewes, if they are all ſold off, and poſſibly the uſual number of caſt ones muſt be ſold on account of their badneſs, then that brings the ſtock too far in. In a bad lambing ſeaſon, it generally happens that the worſt, the oldeſt, and the youngeſt ewes want lambs; and that the beſt and middle aged ones have them; when that is the caſe it will ſometimes not be neceſſary to ſell ſo many caſt ones; then there may be more of the other kind ſold; but whether there be many yeld ewes or few, it is beſt to put a mark upon all that are

paſt

paſt the age, to which they are uſually kept, and if it does not anſwer to put them all off, thoſe that are fitteſt for keeping can be beſt choſen when the reſt go away. In ſpeaking of yeld ewes, the age at which they ſhould be ſold off has not been aſcertained; the uſual time of putting them away, (except in ſuch caſes as before mentioned), is when they are four years old, their age being known by their teeth; but where the land is very graſſy, and the ſheep ſoft, they ſhould be put away a year younger, as they are apt to be bad next year: Thoſe that are two years yeld together ſhould never be kept, if they are known, for they are almoſt ſure to be bad, when once they bring a lamb, and to have but one lamb, and go off at a ſmall price themſelves, is paying ill for four years keeping. At putting off the draught or caſt ewes, it requires ſome ſkill to diſtinguiſh the bad from the good, or the worſe kind from the better, if none are bad;

bad; that is, to keep thoſe that will ſtand the winter beſt, and are moſt likely to bring good lambs. This is done by handling them on the back, and feeling which is leaneſt: The leaneſt are thoſe of which one feels the bones moſt diſtinctly by the thinneſs of the fleſh. Neither is it always thoſe that are leaneſt that are worſt for keeping; when they grow old and fail of the wool, turning hollow at the ſides, though they ſhould be fatter than ſome that are younger, yet they may not be ſo able to ſtand through a hard winter. This I know ſome will not agree to, for it is a common ſaying, that a young lean ſheep, or crock, is the worſt of all crocks. There may, it is true, be young ones bad enough and when they are ſo let them be put off: But are there not in all kinds of creatures, ſome that are naturally fatter than others; and do we ſee thoſe live longer, or endure more hunger or hardſhip than the leaner? and is it not obvious, that a young tight

ewe

ewe will require leſs fodder to bring her through winter than an old one, whoſe bags are ſo big that ſhe can ſcarce get in at a door; although they may be of equal fatneſs in the ſummer, when each of them is getting as much graſs as they can hold. And is it not likely, when during the winter they come to a ſcanty allowance, and that ſcanty allowance to pick from among ſnows and froſt, that the ewe which is old and failed, though of equal fatneſs with the young one, will be leſs able to go through the deep ſnow; that her feet will be more tender for digging into it; that her teeth will not be ſo faſt to pull up the graſs; and that her belly would require more to fill it. With all theſe diſadvantages, is it probable that the old will ſtand as long as the young? The mouth of ewes ſhould be looked that they have not loſt teeth, for if they have, they are not fit to gather food for themſelves, when froſt and ſnow comes. Where the

ſheep

ſheep are ſubject to the rot, they muſt be more ſtrictly examined. This is a diſorder they are incident to in many places, and is very fatal. It does not ſeize them every ſeaſon; even in the farms where it does moſt hurt, they will be ſeven, nay ten years, free of it altogether; and when it begins, it will continue for four or five years to ſweep off great numbers. Hunger, cold, and wetneſs bring it on, froſty ſprings and wet harveſts are ill for it; but there are many places where the ſheep ſuffer equally of theſe, and yet take no ſuch diſorder. It is owing, it would ſeem, rather to the graſs they feed on: Sanded graſs that grows under the flood-mark is bad, and ſoft fat graſs moſtly all of one kind, where the ſheep are fully fed through the ſummer, and not purified with different kinds of food; ſuch as white ſweet graſs to put on fat, with moſs and heath to purify. This diſorder is alſo much encouraged by over ſtocking; this

makes

makes the ſheep grow worſe and worſe by degrees; and when a hard time comes, they are ſo diſtreſſed, and the ground ſo dirty and bare, that many of them never get the better of it. Thoſe that are infected grow white and ſoft of the fleſh; and by handling their backs, one will find the fleſh and ſkin ſlide more backwards and forwards, than with one that is ſound; the blood alſo grows thin almoſt like water. The ſureſt way of diſcovering them, is by turning up the white of the eye; if they are ſound it is mixed with red ſtripes; but if not, it is all white, and ſometimes bigger than common.

CHAP.

CHAP. V.

Of Improvements in the management of Sheep.

IT would appear by all accounts, that the management of ſheep is greatly improved at the preſent time, in compariſon to what it was ſometime ago. In many places ſuch a thing was ſcarcely known, as ſelling ewes that were thought to have a chance to live through the winter, except thoſe that were ſummer yeld; though they had ever ſo many ſheep on their farm; which no doubt occaſioned ſuch great numbers of ſheep to be in the country in good ſeaſons, as we often hear of; and ſuch great loſſes by the death of ſo many of them again when bad ſeaſons came.

came. Thoſe that were put off when judged paſt all hope, came to very little account, as could not otherways be expected; people killed great part of them and lived upon them, lean as they were; another part of them they gave to the poor, and the reſt were driven through the country and the little villages, and ſold to any who would buy them.

It is remarkable, in thoſe times, if they had not a market for theſe old ewes, that they never thought of keeping the ram from them; then they would have had them yeld and fat: and there was never a time when fat ſheep would not have ſold a price.

Now we ſee that every one ſells a quantity of caſt ewes every year, and before they are quite worn out; ſome in harveſt, and ſome in ſpring, as it anſwers; and that by a year or half-a-year's keeping in good low ground, they come to a good account; and where the land is very

good and free from ſtorms, they even pay more than a ſtock reared and kept conſtant would do, for the lambs are very near as good, and the ewes advance two or three ſhillings each above the inlaid price.

I ſtill think there might be more improvements on ſheep, which have been generally unattended to; among others, ſelling off the whole crop of ewes at a certain age as they do wedders; for inſtance, ſuppoſe one to keep 400 ewes on the farm, it is about the uſual number to keep a lamb for every four ewes, that is 100; but in this way, one may keep a few more, in caſe of ſome going off, then to keep the ewes of four different ages, and ſell the fifth all off together: Theſe may be put on a mar[illegible] by themſelves; when the ſheep are ſhorn, the hogs their teeth being newly caſten, diſtinguiſhes one age; the next have only two broad teeth; the third four; and the fourth ſix; then

then thoſe that are full of the mouth muſt be put on a mark by themſelves, as the older crop next to them will be full of the mouth alſo againſt Michaelmas; but if it is found, that when only four ages are kept, the ſtock is decreaſing on account of ſome yeld ones, and ſome bad ones, that may go off, then they may be kept another year, and it is certain that will do; and that every crop may be diſtinctly known, when they are paſt the age the teeth tell it, thoſe that are full of the mouth when they are ſhorn may be marked by cutting a bit of one ear, and the next year when marking another crop by giving the oldeſt a tar mark by themſelves; by theſe means one may have his ſtock all young and good: By ſelling off the whole crop together, when at their beſt, they will give two or three ſhillings a-head more than when they are ſtill the leaneſt and worſt of all ages that are ſold. This practice prevails on the ſouth eaſt borders of Scot-

land. They do not think it adviſeable to adhere ſtrictly to the rule; but in ſorting the two oldeſt ages, for as many as they take from the *fourth* age, which from appearances are judged not to be good, or promiſing breeders, they keep as many of the *fifth*, ſuch as are judged fitteſt for keeping, and the draught ewes are put into two different lots and ſold ſeparately.

CHAP.

CHAP. VI.

Of keeping up Rams in the beginning of the Rutting Seaſon; of the Number neceſſary; Of Ridglings; and of changing Rams for improving the Breed.

ABOUT the firſt of October, it will be neceſſary to remove the rams from the reſt of the ſtock; for in all muir-countries, and where the greateſt quantities of ſheep are kept, in Scotland, it does not anſwer to let the ewes get the ram when they are firſt in ſeaſon; as the lambs come before the graſs is ſo far up that the ewes can give milk to ſuſtain them, particularly if the ſpring is bad. The tup-hogs

muſt be taken from the reſt of their kind at Martinmas, and kept by themſelves till the middle of January; for tup-hogs are in many places capable of generation. In low lands, near the ſea, where the ſpring is early, it would be a loſs to keep back the rams; for the earlier the lambs are, the ſooner they are fit for killing; and will give the higher price, as they are a good relief for thoſe whoſe winter proviſions are growing ſcarce. Thoſe which are in the loweſt and warmeſt places, where the tups are taken up, may let them to the ewes about the firſt of November; and, as it advances higher in the country, or the land more barren, let them be longer, in proportion, betwixt the muir and dale, that is, betwixt the high and low parts of the country, about old Halloween may do; and, where the land is high and ſtormy, not till old Martinmas, or even a week longer, in ſome high ſtormy places. This muſt be regulated by the

part

part of the country in which the farm lies; ewes going with young about five months. The keeping the rams long back from the ewes has not only a chance for more lambs, but is a great ſafety for the ewes in a bad ſeaſon. When the weather is bad, the nearer the lambing they are, the faſter they will grow weak. It is adviſeable to take the ewes, which are a year older than hogs, called gimmers, and keep them ten days or two weeks longer from the tup than the reſt of the ſtock, where it can be conveniently done; and alſo to keep them by themſelves for ſome time after the rams are let to them. The rams ought to be properly kept, the time they are from the ewes, in a park for the uſe; and where they have not that convenience, they muſt be carefully herded. Some keep them from begetting lambs, and let them go among the ſtock, by ſewing a cloth to the wool upon their belly; but that is a bad way; for their natural ſtrength is greatly exhauſted before the proper time.

The

The number of ewes for one ram is not eaſy to aſcertain; this depends ſomething on the ground they go on. If the ſheep go far aſunder, they require the more rams; but I do not approve of many. I think one to forty ewes ſufficient in moſt places; and, if the farm is low and warm, one may do double that number, if he is a good one. I do not think it is good to keep rams old, or longer than two years in one place *. If they are longer than two years in one place, they get lambs with thoſe of their own breed; which do not thrive ſo well as when changed. If it is wiſhed to keep them longer, they may be put to another part of the farm, if the ſheep go in parcels; or to another farm, if the ſtoremaſter has it. If none of theſe is the

* 'To betray a ſhe-lamb of a twelvemonth 'to a crooked-pated, old, cuckoldly ram, out 'of all reaſonable match. If thou be'ſt not 'damn'd for this, the devil himſelf will have no 'ſhepherds.' Shakeſpeare.

the caſe, then let them be put off. There are ſome places, indeed, where the rams are not worth much until they are two years old; and, in ſuch places, it might be thought, if they followed this method, they would have little but thoſe of one age to depend on. Where that is the caſe, let them keep back thoſe that are a year and a half old altogether, along with the tup-hogs. Then they may have two ages ſtill, and be clear of copulation contrary to the order of nature *.

It

* It may poſſibly be thought too great a refinement to ſuppoſe there is any harm in ſuch copulation; though, to what is above obſerved, ſome add, they have obſerved a kind of ſhyneſs in ſome animals in this reſpect. This idea, tho' it ſhould be new, is more agreeable to the mind, than the more common one, which may be nearly expreſſed in theſe lines of one of the Poets:

'The

It ſome times happens, when the rams are good, and the ſheep go far aſunder, that a ram will continue repeating the act of coition with the ſame ewe for a conſiderable time longer than is neceſſary or proper, who receives him without the appearance either of ſatisfaction or averſion. As this hurts the ewes, they ought to be driven to the reſt of the flock.

It would be adviſeable to let no ridglings be amongſt ewes. They are of two kinds. The one has both the teſticles in the back, and is not capable of generation. This kind ſhould never be let among ewes when they are in ſeaſon. The other kind has one teſticle in the back, and the other in

'The father-bull his daughter may beſtride,
'The horſe his mother-mare may make a bride;
'What piety forbids the luſty ram,
'Or more ſalacious goat to rut his dam.
'The hen is free to uſe the chick ſhe bore,
'And make a huſband whom ſhe hatch'd before.'

Garth's Ovid.

in the ſame place with a ram, and gets lambs the ſame as they do; but there ſhould never be any of them kept either, except where the lambs are ſold for killing; for their lambs are moſtly either ewes, or of the ſame kind as themſelves; and that is prejudicial to any perſon who ſells lambs for grazing, or keeps wedders. Both theſe kinds are ſometimes called chaſers: For, though but one of them has the ſame abilities of a ram, they both have the inclination of one. Some will hardly allow this account of them; but I have proved it over and over again, by putting them with a parcel of ewes by themſelves: And not only this, of their lambs being either ewes or ridglings, but theſe ewe-lambs of theirs have often ridglings again I have known ſome of them have four or five of that kind, without ever one of another kind among them. There are generally moſt of theſe where there are many ſheep without horns. I had once, in 300 lambs,

lambs, 30 ridglings, and not a horned ewe the mother of one of them. To keep all the rams with big horns is the beſt way to prevent having many of theſe ridglings I know; and changing of rams ſometimes too makes fewer of them.

That of changing tups, or taking them from one farm to another, to improve the breed, has ſometimes done good, but more often hurt; not by being a thing bad in itſelf, but by being badly conducted, or carried to exceſs. Some do their ſtocks much harm, by changing the tups every year for a number of years, and always from different places, by which they are ſo broke, that the land they are reared on cannot make one of them fat. Neither are they ſo beautiful; for they are turned into all ſhapes and forms, ſcarce two of them like each other. When rams are changed, they are generally brought from eaſt to weſt, in the ſouth of Scotland; becauſe the ſheep in the eaſt parts of Scotland are

bigger

bigger and longer of the wool than in the weſt. But, if they are leſs in the weſt, they are much finer mutton; and, if the wool is not ſo long, it is thicker and finer. There is indeed part of the land in the eaſt as ſtormy as it is in the weſt; but then the land is a much deeper ſtronger ſoil for ſheep-paſture. If, by changing the rams, the nature of the land could be changed, then it would be worth the trying; but, to bring ſheep off deep ſtrong land, and lay them upon a thin ſoil, where it is equally ſubject to ſtorms, and the ground ſtill barer, they are not likely to do much good. Where ſheep are ſelling rough, the changing of tups may do good; but then they ought to be brought off land, as near the nature of the kind they go to as can be got, only choſen longer of the wool, but much of the ſame ſize themſelves; for, if they are much bigger, then they raiſe the ſheep to a larger bone than the ground can either make in good order,

or keep ſo. It is the worſt thing any man can do to his ſtock to raiſe them to a bigger ſize than the graſs of his ground can make fat. There are many places where the changing of tups would do good, not by getting bigger and longer ones, as is generally done, but getting them ſhorter and broader; where, by the folly of ſome former poſſeſſor, too big a kind has been brought into the farm. But the beſt way of all, of changing of rams, it is believed, is to get them out of a neighbouring farm, although only of equal goodneſs to one's own, or, if one has two or three farms, by changing one of them with another. This way will do good, and is ſure never to do harm, let the ſeaſons be as they will; which often is not the caſe with thoſe which are brought from a great diſtance.

It is believed that, to take a whole ſtock of the biggeſt and rougheſt ſheep on any farm in all Crawford, Tweed, or Eſkdale muirs,

muirs, to any farm in Carrick, Kyle, or Galloway; and alſo take the ſtock of that ſame farm to the place the other came off, and keep them ſo, without making any changes on them for the ſpace of twenty years; the ſheep which were taken from weſt to eaſt will in that ſhort time be both largeſt and rougheſt; and any perſon who knows both will be ſenſible that there would be a very great difference when they were changed; and not only that, but there will be little odds for weight of thoſe that have been twenty years on the farm from the natural ſtock, which had poſſibly been on it for ſome hundreds of years. They will, indeed, ſome of them, retain a little of the old likeneſs for a while. It may be ſaid, How ſhall theſe matters be tried? Very eaſily. Let a perſon take a farm in each of theſe countries, and exchange his ſtocks; if he does not think there will be too great a diſtance between the ends of his poſſeſſion. If

that is the caſe, let any one who had a farm in the eaſt, and has loſt it, and takes one in the weſt, bring his ſtock along with him, and let one from the weſt do the ſame.

CHAP.

CHAP. VII.

Of Salving, or Smearing; the neceſſity thereof in ſome places; a new Method thereof leſs hurtful to the Wool; with Obſervations on the Objections to Salving, or Smearing.

HAVING draughted and ſold off your ſtocks what is neceſſary for the ſeaſon, the next thing is the ſalving, or ſmearing, which is not quite ſo agreeable a buſineſs as the ſhearing of them; for it takes longer time, is done in a colder ſeaſon, is not ſo cleanly an operation *, and

* "I remember I uſed to think tar dirty; but "when

worſt of all, it is attended with conſiderable coſt. Thoſe who are uſed in low warm countries will think ſalving needleſs, and thoſe who are in high ſtormy land that no ſheep can be right without it. Wherever the ticks breed on ſheep, there it is neceſſary to ſmear them; where they do not, I do not ſee the uſe of it; at leaſt it will not do good equal to the expence of it. This tick that breeds upon ſheep is not like that which breeds in the earth, and troubles other animals in the warm ſeaſon; for it is when the cold ſets in, and the ſheep begin to grow leaner, that this tick, or louſe, begins upon them, and ſtill increaſes while they decreaſe: When the ſpring comes, and the ſeaſon grows warmer, and the ſheep fatter, then they wear off again. Theſe vermin occaſion an itching, and this is followed by ſcratching, which the ſheep muſt

" when I knew it only to be a preparation of " the juice of the pine, I thought ſo no longer."
Dr Johnſon, in Boſwell's Journey.

muſt do with their teeth. Before they can get to the ſkin, they have to go through the wool, which ſticks amongſt them, and part of it is looſened every time they ſcratch themſelves. By degrees the whole fleece is pulled off, which is a valuable part loſt; and the poor creature turned naked before the ſummer's heat returns. To prevent this evil, ſome experiment muſt be tried; and it has been found that tar is effectual for killing theſe vermin: It is indeed a received opinion in the weſtern parts of Roxburgh-ſhire, and eaſt of Dumfries-ſhire, that ſmearing is both a cure and preventitive for the ſcab. As tar is of a ſtiff tough nature, it muſt be mixed with ſome other ingredient, becauſe, if alone, it would ſtick upon the ſkin or wool, and ſpread to no place but where it were put; neither would it waſh out of the wool again. Butter is the beſt thing yet found out for mixing it with. Some make uſe of oil, thinking that it makes the wool to waſh better; but it

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makes the tar too ſoft ; they have therefore to put in tallow along with it ; ſome put in black ſoap ; but none of theſe will do without part of butter ; and it will do without any of them ; and equally well as with them, both for the ſheep and wool. The method of mixing tar is to meaſure ſo many pints of it into a tub as may be proper, then to take the butter, put it into a pot, and melt it on a ſlow fire : When it is turned into a liquid, put it into the tar, and the ſame quantity too ; ſtir them together till they are properly mixed, and no longer, leſt the mixture become tough. Where the paſture is mountainous, wet and moſſy, or where ſheep are a-ſelling rough, two pounds of butter, Scots weight, is ſufficient to a Scots pint of tar, as, in ſuch places, the vermin are plentieſt upon the ſheep, and the more butter it is the weaker. Again, where the paſture is warm and dry, and the wool fine, uſe fully more butter than tar, as that makes the tar draw farther,

ther, and does not diſcolour the wool ſo much. When the tar is mixed, it muſt have ſome time to ſit before it can be uſed; for, when new mixed, it is too thin, but grows thicker as the butter cools. The ſheep are then put into the houſe where they are to be ſmeared, and thoſe who ſmear them have ſtools or ſeats made for the purpoſe to ſit on: Theſe are about four feet long, and, in place of the ſeat being made with boards, it has two ſides, and is ſpoked betwixt them like the ſteps of a ladder, with feet like any other ſeat; the ſmearer ſits upon one end of the ſtool with a leg on each ſide, and holds the ſheep betwixt his knees, beginning at the head, ſheds the wool with his hands down one ſide to the hip; then lifts a little of the mixed tar with the fingers of one hand, while he holds the ſhed open with the other; and ſo on round the whole ſheep, each ſhed about two inches diſtant from another, or no farther aſunder than that

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the tar will meet over all the ſkin. The diſtance that the ſheds ought to be from one another depends ſomething on the kind of ſheep, and on the wool they have. Hogs would require to be thicker ſhed than old ſheep, and thoſe that are thick and ſtrong of the wool than thoſe whoſe wool is thin and ſoft.

There is another way of ſmearing lately found out, which is much more eaſily and ſpeedily performed; eaſier for the ſheep, and leſs expenſive. The tar is mixed the ſame as in the other way, ſome time too before it is put on the ſheep: Then it is put into a pot, and warmed on the fire till it become thin, and a ſhed made on each ſide of the back of the ſheep into which the tar is poured; for this purpoſe there muſt be provided a little pot of the ſhape of a tea-pot, or kettle, to pour the tar into the ſhade with, with a jug or meaſure diſh that will fix the quantity to be put into one of theſe ſheds. The ſize of the jug cannot

not be properly aſcertained, becauſe, in ſome places, ſheep require more tar upon them than in others; but whatever ſmears two in the old way will do three in this: Any perſon may eaſily make a calculation how many gills they put upon their ſheep the other way, and that will lead them to know what is proper for this way. There are ſome places where this meaſure-diſh will do very well to hold a gill, that is two gills to a ſheep; in others it will require a gill and a half; and in ſome places a little more. The reaſon why ſheep take leſs tar this way than the other is, that, being warm and thin, it runs along the ſkin, and does not go much into the wool; whereas, the other way, much of it ſticks among the wool without being of any ſervice; for if theſe ticks cannot get to the ſkin, they muſt ſoon die among the wool. Thoſe who have fallen in with this ſcheme, for all their ſheep have two meaſures, one for old ſheep, and another for hogs; the one

one for hogs muſt be a third bigger than that for old ſheep, as two hogs will always take as much tar to ſmear them as three old ſheep in the ſame farm. They would, at any rate, require conſiderably more than others; and being part of them ſold rough, they look the better. The method of ſmearing in this way is to put on a fire in the ſmearing place, and a pot upon it; one with a tub of tar beſide him lifts the tar into the pot, and ſtirs it until it is melted: But great care muſt be taken that it be not over-heated; let it be that the one who ſtirs it can hold his hand to the bottom of the pot, and no colder either, for if it is too cold, it does not ſpread upon the ſheep; another takes a ſheep upon the ſmearing-ſtool, and, laying it upon its back, rubs the breaſt and the inſide of the legs where it is bare with a little of the mixed tar; and ſome put two or three ſheds upon its belly, then turns the back up, and, beginning at the head, makes a ſhed down the

the ſide of the back to the tail: A third perſon takes the little pot, and receives the full of the meaſure-diſh from the one who ſtirs the tar, and pours it into the ſhed from the one end of the ſheep to the other, and the ſame with the other ſide. The two ſheds are two inches aſunder from the head down the back, till they go near the loin bones; then they muſt go ſtraight over the top of them; for if the ſheds are betwixt the loin bones, where it is even, the tar has not a deſcent to run down over the body of the ſheep. Some put in a little ſhed betwixt theſe two, from the tail to the place where the other two began to ſpread at the loins. In the two long ſheds, it requires leſs poured in at the neck than the body, as it is ſmaller, and the tar has leſs way to go. This way of ſmearing is a great improvement on the wool, for it waſhes that it will not be known there has been tar upon it, except the two ſheds on the back into which the tar was put, which

are diſcoloured the ſame way as all the ſheds are the other way over the fleece. Any perſon may make a trial of this way, with a few of their flock, which can be nothing hurt by it, or would not be much the worſe of being unſmeared altogether for one year. It needs no materials more than the other way, except the jug to meaſure it with, and the pot to pour in the tar, which are made of tin and eaſily procured; an old tea-pot, with the grate knocked out, which keeps in the leaves, will do in place of the laſt of theſe for an experiment: But let the perſon making it be careful to follow the above directions, and not condemn the invention without giving it a fair trial.

For ſome years paſt tar from New England has been more uſed in ſeveral places than Norway tar; it is thought to be equally good in every reſpect for the ſheep, and the wool-ſtaplers recommend it ſtrongly, finding the wool much more eaſily ſcoured than

than that ſmeared with Norway tar. Norway tar is ſtill uſed in theſe places for ſheep that are meant to be ſold in the market rough, as it gives them a better colour.

Though what has been ſaid in the beginning of this chapter might be thought ſufficient to ſhow the expediency of uſing tar in ſome parts of the country, yet one or two late treatiſes have endeavoured ſo much to decry it as pernicious, that it becomes in ſome degree neceſſary to obviate their effect, where they have gone too far, or upon grounds not ſufficiently ſolid: And in this we are not to be ſuſpected of any partiality or prejudice, or of being actuated by any other motive than the love of truth, or benefit of the country; as we are ſenſible the authors of theſe treatiſes acted from the ſame motives, they deſerve to have the matter candidly inveſtigated. After all, people will poſſibly be divided as far as ever; and whilſt we may, on the

one hand, be accuſed of adhering too ſtrictly to the former practice, we will, on the other hand, be blamed for propoſing fanciful improvements. But to proceed to diſcuſs the reaſons given by thoſe who are againſt ſalving: 1. In general they do not advert ſufficiently to the different kinds of land on which ſheep are kept; and if it is unneceſſary in ſome, they conclude it muſt be ſo in all. Sheep, in fertile ſoils and in mild climates, require no other covering than what nature has beſtowed; but if man's induſtry has led him to ſtock with theſe animals, the more barren, bleak, mountainous parts, where little or nothing could be made from any other ſtock; and he did not endeavour to fortify them againſt the inclemency they had to encounter, it would beſpeak him not only deſtitute of invention, but void of reaſon: For as to keeping the ſheep warm, this muſt be allowed, if it prevents the fleece being torn off, unleſs it can be ſuppoſed a naked ſheep

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is warmer in winter than one covered with a fleece. 2. They aſk, 'Has the almighty 'Creator and Governour of the Univerſe 'formed any living creature without be-'ſtowing on it ſuch a covering as is beſt 'ſuited to its exiſtence?' Theſe gentlemen may be anſwered in conſiſtence with the moſt fundamental principles of our religion, that, at the creation, ſheep had all the covering that was neceſſary; but upon the fall, and conſequent curſe of the ground, matters were altered; and, in place of an eternal ſpring going hand in hand with autumn, the varieties of heat in ſummer, and ſnow in winter, took place. The ſame queſtion might be put againſt theſe gentlemen wearing clothes, or having the accommodation of houſes: The inhabitants in many places in Africa and Aſia may exiſt in their natural ſtate; but is it ſo in Britain, Ruſſia, or Lapland? 3. No argument can be drawn from domeſtic animals

which are houſed in winter, whilſt ſheep are not. 4. Thoſe drawn from the ſimilarity of wool to fur do not apply, as it is a very different ſubſtance, which has no more connection with fur than it has with feathers, and the fur-tribe have in general methods of ſhelter which ſheep have not. 5. To make their arguments appear ſtronger, they have talked as if it had been uſed without butter; when, on the contrary, as much butter is put into it as the nature of the paſture will admit of. It has probably been from ſome motive ſimilar to that for which we uſe tar that the Spaniards were at firſt induced to uſe the ochre they do for their ſheep. There is no doubt but ſome time ago the farmers, finding a certain quantity of tar beneficial, thought the more they put on the better, which was a very wrong concluſion; and they have accordingly given up that opinion. The hogs are ſmeared heavier, it is believed, on

on the ſuppoſition they ſell better in the north of England. Experience is the beſt teſt of this fact. Thoſe that are intended to be kept as well as the others, poſſibly require more than other ſheep, having more wool; which may be partly accounted for from this conſideration, that not being ſhorn in lambs, they have more than a year's wool. As an inducement, however, to give them none unneceſſarily, it is to be obſerved, that the Engliſh manufacturers give more for the firſt fleece, in proportion to the weight, than for any other; and it may be ſuppoſed, when we have made ſome progreſs, our's will do the ſame. In low well ſheltered lands, ſmearing is often unneceſſary, and probably may be, in a great meaſure, in the Hebrides, as being near the ſea moſtly, ſnow will not lie any length of time; ſo that the farmers and others who go from the ſouth thither, ſhould be cautious in con-

conſidering whether there is uſe for it, before they uſe, or adviſe the uſing of it there; as, if it can be wanted, the wool will ſell greatly higher without it, beſides ſaving the trouble and expence of it.

CHAP.

CHAP. VIII.

Of Herding during the Winter; of Stells, or Places of Shelter; of Relief Paſture; Foddering Sheep during a Storm, and taking care of them afterwards.

IT is beſt to have the ſmearing over before the rams are let have acceſs to the ewes, if it could be got done, that they may go eaſy and undiſturbed in a good paſture, while the rams are amongſt them, which ſhould be a month at leaſt. When this time is over, they ought to be kept out on high ground, when it is good weather, that the low ground may be kept for ſtorms. When the weather is good, there

there ought to be no opportunity loſt in herding ſheep upon the higheſt and coarſeſt of any ſtormy farm, and on all places that are likely to be of leaſt uſe in ſnow; for, when it comes, they are apt to be confined for a conſiderable time within little bounds; and, if the place they are confined to has not been well kept and rough, then they muſt ſuffer hunger, which will make the owner ſuſtain loſs.

When ſnow ſeems to approach, the herdſmen ought to be very attentive to their flocks, to have them gathered together upon ſome low piece of ground, where they may be ſafeſt from the tempeſt; for, if they are diſperſed over all the farm when the ſnow comes on, there is danger of their being covered over with ſnow, and loſt before they can be got together, or of being driven off their own paſture, and diſperſed among their neighbours; or, though none of theſe ſhould happen, but all be got ſafe together, yet they may be much

much hurt by being expoſed to the drift of ſnow, and ſo bedaubed with it, that they can ſcarce move or ſee which way to go. They muſt then be ill at gathering meat for themſelves; and this may remain upon them, either till it come ſome little thaw, or until the ſun ſhine ſo long upon them as to melt it; any of which may be a conſiderable time of happening.

One material thing in herding, is for the herdſman to wait well upon his charge; without that, all other inſtructions will be leſs effectual; by that he knows all their motions, and where to find them at all times. Sheep naturally incline downward at night in the winter time, as they do up in the ſummer. This, too, ought to be encouraged in them; for the long nights in the winter are ſo alterable, and often ſo ſtormy, that they have great need to be in a ſhelter; then, if the day appears to be good, they will naturally ſpread out to the high ground; which may be helped by

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the herdſman; and, if it is bad, it is eaſy for them to ſtay on the ſheltered ground, or to be turned to any place where there is bield in time of ſnow. At this ſeaſon, ſheep ought to be conſtantly waited upon while they are feeding; for, if they are only ſet to their meat and left, if it is cold, they will run directly into their ſtells or folds, or ſome place where they will get nothing worth while to eat; and, although they ſhould be ſet to their meat again, they will ſcarce do ſo well as at firſt; they muſt alſo be much fatigued by driving through the deep ſnow, and their feet hurt by the hardneſs of it, as well as the loſs of their time, which is precious to them while the ſun ſhines in a ſhort winter day. There muſt alſo be ſome means uſed for providing ſhelters for the ſheep at night, as well as of feeding them by day. This is done by building a dike round or ſquare, of ſuch extent as will eaſily hold the quantity proper to be in one

place

place together. Theſe places of ſhelter or ſtells muſt be built on ſuch places of the farms as ſhall be judged convenient for the ſheep to go to and from the places where they can feed in ſnowy days; ſo as they may be got eaſily and ſafely to the ſtell at night, after ſuffering the ſevere blaſts of the day; and alſo that it may have a chance of being near where they are to get their meat in time of a lying ſtorm; that is, in a long froſt and ſnow lying upon the ground at the ſame time. Theſe ſtells are either made round or four ſquare, with a door; or with grains croſſed over like the letter X. Theſe different forms are uſed, partly as people fancy, and partly as the ſituation of the ground, or circumſtances admit of. If there is even ground to be got to ſet the ſtell upon, near about the place where it ſuits to have it, then a round or ſquare one, with a door in it, is beſt; and they ſhould always be of that kind where there is danger of the

ſheep running from them in ſnowy nights, as in ſome places there is; then one can ſhut the door on them: But, where there happens to be a moat, or know, that ſuits beſt for the ſtell to be on, then one with grains will do beſt, and make much more ſhelter or bield than any other. Some places, where they muſt be on a brae, or aſcent of a hill, they will do beſt like a C, in ſuch a way as the ground may anſwer *. There are ſome places where there is no need of ſtells, nay where they do hurt. When the ground is naturally well ſheltered, and there is no great danger of their being loſt, by being covered with ſnow and ſmothered, then ſheep are better without ſtells; they are not confined ſo near one another; they get ſooner out to feed, and ſtay later, than thoſe which

* When men of learning and genius ſhall take up this ſubject, I have no doubt of it's being treated of, on philoſophical and mathematical principles, as much as *dialing*.

which are uſed in a cloſe, warm ſtell. There is little danger of ſheep being ſmothered in any brae or bield where the ground is plain and open before them; but, where they are ſtanding in a brow, near a burn or rivulet; or where there is a dike at the foot of it, ſo as they cannot get forward; or where they are in a ſtrait cleugh or glen, with a brow on each ſide of them, they can ſcarce eſcape, when it comes great ſnow with wind.

It often happens, that, by reaſon of ſnow, ſheep are badly off for meat in ſome parts of this country; and it is a lucky thing, that it is ſeldom all the country is ſo at the ſame time. It has always, at leaſt for a long while, been a cuſtom in ſome parts of the country, and it is more ſo now than formerly, for thoſe who have a muir-farm for ſheep, lying high in the country and ſtormy, to take one lower to winter their hogs upon, and to take their ſtock to when great ſnows happen, that they have not

food in their uſual paſture, and to bring them home again when thaw comes. Where theſe farms for relieving of ſheep cannot be got conveniently, or only at an extravagant rate; yet, when great ſtorms come on, and ſheep have little or almoſt no meat, it is better to take graſs for them while the ſnow lies, if it can be got, though at a high rate, than hunger them too ſore. The outlay is known then at once; but, if the flocks are kept hungering on without relief, it is long before it can be known how much the loſs may amount to, or thoſe that live recover their former ſtrength. When one has more muir-farms than one, and all need relief, it has been ſometimes found, that, when the loweſt of them were relieved, what they left would relieve the higher.

Where graſs for ſheep is very ill to be got in time of ſnow, either by reaſon of the dearth or the diſtance of it, when there is good hay, either ley or ſoft meadow hay,

hay, it will do very well. Hogs are readieſt to have occaſion for this way of feeding, becauſe they can worſt be driven far off their paſture. Where there is ſeldom occaſion for haying ſheep, if there is but a ſmall number of them, they may be let to a ſtack; and, when they go from it, what they have drawn down and left may be gathered up and given to other beaſts; or, the hay may be laid out upon the ground, and all ſpread in little quantities, the ſame as in foddering nolt that lie without; but, where the haying of ſheep is much uſed, there muſt be hecks prepared for feeding them. In the countries where ſheep are conſtantly fed with hay the ſame as nolt, they generally have a crib or manger like a horſe's; and, being out in the fields, and expoſed to rain or ſnow, they have a cover over it, placed at ſuch diſtance as the ſheep may have room to put in their heads below the cover, and eat out of the crib; but, where ſheep are only fed in time of

ſnow, when they can get food no other way, and in large quantities together, then they have hecks made with ſpokes, like a horſe's heck, but with two ſides, ſtrait below, and wide above, like the hopper of a mill, and ſet upon feet, by which they can feed all around; and theſe may be conveyed to any place that anſwers beſt; or they may be made the ſame as a horſe's heck, only leſs in breadth, and ſet up to the dike of their ſtell or pen. When the number of ſheep that are together are more than can get all to the hay at once, then let ſuch a quantity go to it as can get eating with freedom; and, when theſe have got enough, take them away, and put more to it. When ſheep are a feeding with hay, they ought to get water regularly; for the dryneſs of the hay creates a thirſt to them; and, if they are not properly watered in time of froſt, beſides being thereby hurt, when thaw comes they are apt to take too much of it, which hurts them greatly.

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When thaw comes after a long froſt, ſheep ought to be taken great care of, if there are any burns or cleughs full of lapper (or half melted ſnow) in their way to clean paſture; for they will not then be eaſily confined; and they are in great danger of drowning, eſpecially in the ſpring, when they are big with young; and, in that ſeaſon, they agree worſt with being confined, and ought to be encouraged in ſpreading to clean paſture as ſoon as they can with ſafety. If there is moſs in the low ground of a farm, it is a great benefit for ſheep; for they can feed upon it let the weather be ever ſo ſtormy, if it is not froſt: But, where the moſs lies in the high ground of a farm, there can be no good got of it in the ſpring, except in a ſet of fine weather. Where a ſheep-farm is not very extenſive, and part of arable and meadow ground in it, the ſheep will do very well upon it in the ſpring, till ſuch time as it muſt be kept for corn and hay; and,

and, where the farm is larger, part of the flock will go in the low ground, and part out upon the high ground, where it is freſh and clean. This way of feeding the ſheep in the month of March anſwers two ends: It is beſt for them at that time; and it lets their winter paſture and beſt ſheltered ground grow for them to feed upon in April, when they are lambing.

CHAP.

CHAP. IX.

Of Udder-locking and keeping Ewes previous to the Lambing Season; of the Management of them during that Season; of bringing up Lambs when the Ewes die; and of their Amusements, &c.

SOME time before the ewes bring forth their young, they ought to be udder-locked. The way this is performed is, they are put into the fold, and all caught one by one; held upon their back; a little wool pulled off their udder, and a little bit round about it, so as the lamb may not be hindered by the wool from sucking. After all that can be done for them, when a ewe

ewe happens to be unwilling to let her lamb ſuck, and one has a hold of her, it is often ſo difficult to make the lamb ſuck, that, to ſee it, would make one think it almoſt impoſſible any of them would ever ſuck without help; yet few of them ever fail of getting the milk when the ewes are rightly affected, ſo ſtrong is the inſtinct of nature implanted in them. I would not adviſe this plan of udder-locking to be practiſed every where; only where ewes are going by themſelves, or can eaſily be ſeparated from the reſt of the flock, and where they are very rough of the wool, and naturally calm, that they can be handled without being much hurt, as they muſt at this time be very eaſily hurt. Where there are wedders and all other kinds of ſheep among the ewes, it can ſcarce be done with ſafety. Where ſheep are wild, and all kinds of them going together, and where they are not very rough of the wool, I think it is better not to udder-lock, for it

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is in danger of doing more hurt than good. It does very well alſo to udder-lock, or rather *under-lock*, yeld and he-ſheep too, eſpecially hogs: They are done rather in a different way. Begin below the tail, and pull off a little wool down betwixt the hind legs, until it come to the belly, with the lock about the *ſcrotum* or cod, about the breadth of three fingers; it is thought to make them go much eaſier, and mend better;—the wool will amply compenſate for the trouble.

When the lambing time begins, there ought to be great care taken to let the ewes go upon the beſt part of the farm, and in the eaſieſt manner poſſible; and, if the ſituation of the ground will allow, to have them by themſelves, and the other kinds of ſheep upon the higheſt and coarſeſt land. There are many places, where ſheep are not hirſelled or kept in different parcels through the whole ſeaſon, that ewes may be kept on low ground upon

hog

hog fences, or corn land, for a week before the corn get up*; and where they have dikes to confine them, and let them go undiſturbed. Where the whole ſtock cannot be kept in this manner, by having too little graſs for them, then it may do to take thoſe that go upon the higheſt parts of the farm into low ground. But there are many places where ſheep go in hefts or hirſels, and if they have their freedom, will not ſtay off their own place, be the weather ever ſo bad; and in ſuch places it often happens, that one part of the ſtock may be very much hurt, when another is receiving no harm by the bad weather. In many places, there is great loſs of lambs upon high hills, by foxes and eagles, where on the low grounds of the ſame farm they do no harm, this I think ought to be an inducement to take the ewes into low ground.

There

* Virgil in his 1ſt Georgic recommends this as beneficial to the corn, by deſtroying the weeds.

There are ſome places where gimmers might be kept by themſelves in that ſeaſon, although no other kind could; if they have been wintered by themſelves in hogs, in the ſame farm or near it, they will eaſily herd upon the ſame paſture next year, or on any low part of the farm they go on; they have more need to be kept on a good place than older ewes have, as they are more weakly, and have leſs milk for their young.

When the lambing is begun, the herdſmen ought to watch over the flock with more than ordinary care. They will have the happineſs to ſee themſelves always doing good. By being conſtantly among them, and knowing one by another, they have it in their power to do much more good, than when they are ſeeing them only a day now and then, or one part of them one day, and another part another. By ſeeing them frequently, they come to know what ones they have ſeen having

lambs, and what are unlambed at firſt ſight; then, if any ſhould chance to loſe their lamb, when they are ſeen again wanting it, the herdſman knows directly, and goes in ſearch of it, and may poſſibly find it ſtrayed far out of the reach of its mother, where ſhe would never have found it; or poſſibly the lamb may be fallen into ſome hole, or caught in ſome place from which it cannot get clear, and yet be alive, and the herdſman come in time to ſave it; when he would probably never have ſeen or thought of it, if he had not known the ewe once to have had one. At other times, he will get a lamb wanting its mother, then the better he knows the ſheep one from another, the eaſier will he find out its mother, by looking through the ſheep, knowing them that had lambs before, and ſeeing if any of them wants: If the lamb is quite young, then the mother will eaſily be known from thoſe that are unlambed; and the herd may eaſily know all thoſe whoſe

whoſe lambs were dead before, if he is conſtant among them, and is as active and intelligent as he ſhould be; by theſe means he will find out a mother for the lamb, which he could not otherways have done; and he is not obliged to follow that rude cuſtom, of ſetting the poor creature to the firſt ſheep he finds, to ſeek for itſelf,—to be puſhed at by every one it goes to,—or that paſſes by it,—and to die of hunger at laſt; for the ewes do not all ſeek for them themſelves, ſome are kinder than others; —young ones are apt to be more careleſs; if they are lean they are ſcarce of milk, and that makes them unkind. It is not ſo difficult as may be imagined, to know a great number by the head, as their faces are as different from one another, as thoſe of the human race are; they are diſtinguiſhable from the high noſe, or the face hollow in the middle, the fairneſs or grayneſs of the face, from the having or wanting a ſpot of wool in the middle of the

forehead, from being horned, or not, or from the ſize or ſhape of the horns. A ſhepherd has been known from this, and having his ſheep in hirſels, to be able to know what kind of a ſheep was a-wanting out of 30 or 40 ſcore. On that of their phyſiognomy, it is ſome times amuſing to ſee children point out reſemblances betwixt their faces, and thoſe of particular perſons. The ſimilarity, it is believed, is indeed often nearly as great as that of perſons, (for inſtance, Apollo and the nine muſes), in a piece of agate, one half of which is only to be found in the imagination.

The ewes are ſometimes in danger of falling wrong and dying, or of needing help when they are weakly, and the lambs are in danger many ways of loſing their lives, when ſo young and tender, which may be prevented, by the herdſman's attending cloſe upon them; he ought in bad weather to carry milk in a bottle, or

in

in whatever way he can moſt conveniently, and give a little of it to any he finds weakly; even when they are become ſo weak that they are neither able to ſuck nor ſtand, a little milk will ſo revive them, that they will ſoon recover ſtrength to ſuck, and may do well afterwards, when without that help they would ſoon have died. It does very well when it has been a bad day, and the night appears to be ſo likewiſe, to take in ſome of the weaker lambs into a houſe, if they are near it; but to carry them far hurts them, and to give them milk and take them out again in the morning; but to take care to keep them from ſmoke, or any kind of dirt, otherwiſe the ewes will be ſhy to take them again, their ſmell being altered.

When a lamb is found wanting its mother, and none can be found for it; or if a ewe dies that has a lamb, ſuch ſhould be taken into the houſe and fed carefully. When a lamb dies off a good ewe that

has plenty of milk, then take the ewe and put her into a little place of confinement, and take the ſkin of her lamb and put it upon the motherleſs one, then put it in beſide her, and let her ſtand a day or a night, or ſo long as neceſſary, till ſhe be reconciled to it by thinking it her own; not ſo long as to be hurt by hunger. If the ſkin of the dead lamb is not to be got, take the milk of the ewe and put it all over the lamb that ſhe is to bring up, and that will anſwer the ſame purpoſe in making the ewe fond of it. The place where they ſtand ought to be made dark, and after they have ſtood ſome time, let them have more room to try them, before they are ſet at liberty. A little cloſe park is very uſeful to put them into for ſome days, where they can be ſeen how they do. This way is doing good, both to the ewe and lamb, and great profit beſides. But I do not approve of practiſing the ſcheme very much, in every country, of trying

trying to give ewes other lambs when their own are dead. When the ewes are good, and in countries where they are calm of the diſpoſition, they eaſily take lambs, and it does not hurt them ſo much as the milk does, if they are let go yeld: In theſe places it is certainly right to practice it, when there are lambs wanting mothers, or ewes that have two lambs, or ewes which are not fit to bring their's up, and hogs that have lambs; all ſuch are the better to want them. Hogs indeed ought always to be kept from the rams, for it is a great loſs for them to have lambs.

In countries where ſheep are wild, and the land barren, they will not take any lamb but their own, without ſtanding until they are almoſt uſeleſs; then the milk goes from them; and, although they take the lambs at laſt, they are ready to die before they gather more to ſuſtain them; and they are ſo much hurt by it themſelves,

ſelves, that many of them never recover again rightly: They are likewiſe ſo wild, that, when they are let go, although they have taken the lambs, yet they run off faſter than the lambs can follow, and can never be got to wait upon them, until they get ſo much ſtrength as to follow them. So, conſidering the hurt the reſt of the ſtock may get by the catching of them, the hurt they get themſelves, and the many miſgivings among them, it often does more harm than good.

In a ſtock of 30 or 40 ſcores, it is only a very ſmall number, unleſs the ſeaſon is very bad, that require any kind of trouble almoſt, except the looking after.

This is the moſt pleaſant time of the year to keep flocks, if the weather is good; to ſee how careful the creatures are about their young, and how beautifully the inſtinct of nature is diſplayed amongſt them. They inſtantly know each other by hearing their bleat, which is of remarkable ſervice to them when they happen to be ſeparated,

parated, which is often the caſe when the lambs are aſleep, and the ewes poſſibly feeding at ſome diſtance; then, if other ſheep ſhould chance to come paſt the lamb, and awake it, before the mother return, it is ſometimes hurried off amongſt them before it is aware; and it is only by bleating they can have any chance of finding each other. When they meet, this is confirmed by ſmelling; and they cannot be deceived, though amongſt ever ſo great a number. The lambs often gather together in quantities to ſport and play; to run races; leap with one another; and make mock-battles, their mothers feeding careleſsly beſide them: But when ſurpriſed, or when hunger calls, or night draws on, then all is hurry and ſound; each runs to meet its dam, for protection and nouriſhment *.

Where

* —— the mountain brow,
Where ſits the ſhepherd on the graſſy turf,

In

Where hogs of a farm high in the country are wintered in a lower place, if they are thriving well upon the winter paſture, it may not be amiſs to let them ſtay upon it till the ewes be moſtly lambed, which muſt make more graſs for the ewes, and conſequently be better for them and their young lambs.

Sheep have a predilection, like other animals, to the place of their nativity, and to thoſe with whom they have ſpent their early age. If lambs are taken from their dams, when four months old, to a different part of the country, kept eight months, and

In haling, healthful, the deſcending ſun.
Around him feeds his many bleating flock,
Of various cadence; and his ſportive lambs
This way and that convolv'd in friſkful glee,
Their frolics play: and now the ſprightly race
Invites them forth, when ſtraight the ſignal given
They ſtart away, and ſweep the maſſy mound
That runs around the hill, the rampart once
Of iron war, in ancient barbarous times.

and then brought back to their native place, they will know it, and ſtay in the ſame place in which they were uſed to go, and in no other place near it, unleſs they be herded. When allowed to be with their mothers ſix months, and taken from them other ſix, they know them perfectly at their return, and follow them the ſame as when they were lambs, until they have another lamb. All the ſheep of a hirſel or heft, or even lambs new taken from their mothers, ſeem to know each other; for, if two of them are taken and put among ſheep or lambs of a different farm, they will aſſociate together. Ewes frequently go to the place of their nativity, at a conſiderable diſtance, to lamb; and we have known wedders come above fifty miles home from the market at which they were ſold.

CHAP.

CHAP. X.

Of the Diſeaſes of Sheep, and Methods of Cure thereof.

THE diſeaſes which affect ſheep are various.

The moſt diſagreeable one, and that which ſhepherds have the greateſt averſion at, and moſt fear of, if it is heard of in the country, is the *ſcab* or *itch*; not from its being ſo much more hurtful than others, as from its being more infectious. In hilly countries where there are not march-dikes, it is impoſſible to keep ſheep of different farms altogether aſunder; and the diſorder may thus ſpread over a great part of the

the country before it can be ſtopped. The beſt cure for it, is to put brimſtone among the tar they are ſmeared with, if it is challenged when they are rough; if at clipping time, or when they are bare of the wool, to take tar, with ſome butter to ſoften it, and a quantity of brimſtone mixed along with it, and rub the ſheep all over *. There is alſo *Cowan's* powder, made and ſold at Sanquhar, with a receipt how to uſe it, for bathing ſheep, or any other animal having that diſeaſe. This diſorder is, it is thought, brought on by their being diſtreſſed ſome way or other; being overheated, and thereby ſet back of thriving, is bad for it; and want of ſmearing has ſometimes brought it on.

The *rot* is another bad diſtemper to which ſheep are liable in ſome countries.

* Virgil's cure ſeems pretty much the ſame.

" ——— Vivaque ſulphura,
Ideaſque pices. ———

Where ſheep are fed on fat and dirty kind of paſture, they are in danger of it, eſpecially if they are obliged to ſuffer hunger, and become lean; then they do not ſtand it out like thoſe fed on clean ground, where they have moſs and hard kind of food. Thoſe alſo upon fat ground, or very wet ground, are not ſo tight or wholeſome. When affected with this diſeaſe they waſte away, their blood growing thin almoſt like water, and their fleſh white and ſoft. They diſcover themſelves by a ſwelling that gathers under their chin, containing a kind of water *. This goes away ſometimes in ſome kinds of weather, and afterwards returns. After this appears, they will not ſtand much hunger or bad weather. The ſymptoms to be diſcovered, when the ſheep are a handling, have been already mentioned. There is nothing

* This ſeems to be nearly the ſame as the murrain mentioned in the end of Virgil's 3d Georgic.

nothing ſo good for preventing this diſorder as light ſtocking. In wet land, draining is alſo often of ſervice; and, where a farm is partly arable, ſowing off ſome part of it with rye-graſs is thought beneficial. If it is in ſummer or harveſt they ſhow themſelves to have this diſeaſe, it is in vain to keep them another winter: If in winter or ſpring, take them to lower ground, where they will be free from ſtorms, and they have a chance to live till ſummer, and poſſibly get fatter, ſo as they may be of uſe to be killed. To put them to paſture on the ſea-ſhore, part of which is within the ſea-mark, will indeed cure them, if they have ſtrength to ſtand it, as it is phyſic to them; but the greateſt part die immediately. Sheep that appear to have the rot, when a-feeding with hay, ſplit peaſe and bran have been recommended, and littering them now and then with ſtraw; and, if they can find any graſs in the day-time, it will be unneceſſary to give them any wa-

ter. Ivy leaves, on account of their hot and dry nature, have alſo been recommended *.

Another diſtemper that kills great numbers of ſheep, eſpecially hogs, is the *braxie* or *ſickneſs*: It is a kind of cholic they are ſeized with; they ſwell, and die in a ſhort time's illneſs, ſometimes not above two or three hours, and none above two or three days: It is occaſioned by fat or dirty food, and ſometimes by the weather, when it changes from rain to froſt on a ſudden, or the weather is variable and ſtormy. Change of paſture to clean ground is good for preventing it. It has been found to be of ſervice to run the hogs among the old ſheep, and not herd them by themſelves, by which it has been ſtopped; and, on grounds ſubject to it, this method has been ſucceſsful as a preventative. The following is a receipt for it. Take wort of

* Ellis's Huſbandry.

of malt; let it be pretty ſtrong; then take mugworts, and ſhear them ſmall, and put them into the wort, till it be thick with them; as alſo, put in a little broom. Boil all well together; take out the mugworts and broom, and put a ſpoonful of butter into every pint of the liquid; and, at Lammas, put a Scots pint of this into every twenty lambs, equally divided among them. This has been tried in different places, and proved ſucceſsful. When they are ſeized with this trouble, the beſt thing for them is a little freſh butter, melted and put into them milk warm. A doze of ſalts is very good. Probably an injection would be of ſervice before the diſeaſe got too great a length. It is always the fatteſt that are ſeized with this complaint. When they are ſeen dying, they are ſometimes bleeded, and afterwards eaten by the poorer people; or, when got very ſoon after, the blood taken out with water, and afterwards eat, the diſeaſe being in the in-

wards, which has cauſed a reproach againſt part of this country, for eating what died in the blood. All manner of game dies in the blood, if that were any objection. Any law againſt this is believed to have been only local, and owing to ſome complaints frequent in the place for which ſuch laws were made. Some of thoſe who have eat the fleſh of ſheep in this way, are extremely fond of it *.

The *trembling* or *gripping*, which is believed to be the ſame of what is termed ſometimes the *louping-ill*, is a diſtemper very hurtful in ſome places; it is worſt in drought in the ſpring. The better ſheep can be kept in ſhelter, and not expoſed to the dry and withering winds at that ſeaſon, they will be in the leſs danger of it. They are ſeized different ways, ſometimes in a leg, as if crooked; it works over them all by

* "Whilſt moorland herds like good fat braxies,
"Whilſt *terra firma* on her *axis*."

BURNS.

by degrees, and they continue in it a long time. Others are ſeized all over at once, and die ſoon. It is ſaid, that, if ſheep are taken off land where they are ſubject to the trembling, unto land where they did not uſe to take it, they will continue to be ſeized with it much the ſame as when they were in the lands ſubject to it, for a conſiderable number of years, and that it wears off by degrees. It is certain, however, that, to take ſheep from lands where it never ſeizes them, to where it prevails, they will not miſs to take it. The beſt thing for it is bleeding in as many places at once as can be done, under the eyes, the tail, and in the inſide of the legs, where it is bare, and a vein eaſily to be found. The following cure for that diſorder was tried on them by a young gentleman at Langholm, who had ſtudied phyſic, and taken his degree as a phyſician. It has been often tried in that country, and

has

has ſeldom failed of producing the deſired effect both upon ſheep and cattle.

℞ Flor. zinc. ʒii.

The medicine to be mixed with twice its quantity of oat-meal, and water ſufficient to make it into a *bolus*. To be divided into twelve equal parts; two to be given the firſt day, three the ſecond day, and four the third day, to be continued till it has the deſired effect. The ſheep to be kept in the houſe during the night.

The *ſturdy* is another diſeaſe to which ſheep are ſubject, eſpecially hogs, and ſometimes thoſe a year older; but it happens very rarely to old ſheep. This is a water that gathers in the head, in a kind of bladder or blob in the ſkull, and renders them ſtupid: It works a long time before it kills them; they will be affected a conſiderable time before they can be much noticed, or leave off going with others; and will gather food long after they are quite ſtupid about every thing elſe.

elſe. This is occaſioned ſometimes by the ſkull being fractured or hurt by accident, but oftener when there is no known cauſe. Much wetneſs is thought ill for it. It is cured by cutting theſe at the fractured part or ſore place, and taking out the bladder or bag which contains the water; or, if it cannot be got out, to let the water out of it; and, at any rate, to have the water run out of the head if poſſible. That part of the head ſhould then be wrapt up with a cloth, to keep it from wetneſs and cold. For ſome years, a method has been made uſe of to cure this diſtemper in Liddiſdale, and with conſiderable ſucceſs. It is a coarſe operation. The herd takes a pretty ſtiff wire, and runs it up through the noſtrils of the ſheep affected, and breaks the blob or bladder which contains the diſeaſe, and the water drops out through the noſtrils. This method of cure can only be practiſed when the blob lies in the line of one of the noſtrils. It is not certain

tain but there is another kind, in which the water goes equally through the head, which is incurable. As they will fatten after they have taken this diſorder, when it is in the ſpring or ſummer, or beginning of harveſt, they are frequently put into an incloſure for ſome time, and then killed *.

There is another diſtemper which ſheep take that waſtes them away in a few days; it is a flux or looſeneſs; it is called the *cling*, and by ſome the *breckſhaw* †. It is thought to be ſometimes occaſioned by the ſheep being over-heated. It is apt to ſeize ewes that are milked, which is thought to be occaſioned by their being too warm in the

* This ſeems to be the diſorder meant in Virgil's 3d Georgic, when he ſpeaks "of killing a "ſheep that inclines to go alone."

† That nearly the ſame name ſhould be given to this, and a complaint quite contrary in its ſymptoms, may be owing to this, that a degree of *cholic* ſometimes attends the laſt alſo, which this is the term for, as to that animal.

the bughts. It is infectious; and, as ſoon as they are ſeen infected, they ought to be taken from among the reſt, and kept by themſelves. It is ſaid, that a place where they cannot get water is good for them to be put into. Smearing is beneficial. Log-wood boiled in ſpring-water till the water has taken a full colour, of which two gills, morning and evening, to a ſheep, and kept from water, has been recommended, as commonly proving effectual *.

CHAP.

* Wight's Huſbandry.

CHAP. XI.

Of the Markets for Sheep bred in Scotland.

THERE is a market at the bughts at Edinburgh three days in the week, Monday, Wedneſday, and Friday, through the whole year, for fat ſheep and lambs, and one at Ayr every Friday through the ſummer. The firſt market in the ſpring is at the Houſe of the Muir, ſeven miles ſouth of Edinburgh, which holds on the three laſt Tueſdays of March, and firſt Tueſday of April, Old Stile. This market is for the draughted or caſt ewes of the preceding year, after being fed in the winter on low ground; they are called great ewes,

ewes, or fogging ewes. Numbers of them are alſo taken into the north of England, and ſold both in harveſt and ſpring. Theſe are bought to be put into incloſures or improved land. The lambs, as ſoon as they come to ſome ſize, are ſold into the market, and the ewes kept in good paſture, and fattened and ſold later in the ſeaſon. When the in-coming tenant will not give a reaſonable price to the out-going one for his ſtock, it may be diſpoſed of in this manner. Hogs, dinmonts, (wedders a year older than hogs), and old wedders, are moſtly ſold into the north of England, and, in general, rough ſheep of all kinds. The principal markets in the north of England are, Appleby in Weſtmoreland, which holds on the firſt Wedneſday of June, Old Stile, and Stagſhaw in Northumberland, on the fourth of July. There is a fair at Muirkirk for rough ſheep;—markets for the ſame at Kirkbride and at Linton;—Biggar fair for lambs,

holm, Carnwath, Boſewell, Lockerbie, Auchinleck, and ſeveral others, the times of which are to be found in the Almanack. There are ſheep-merchants, called drovers, always ready to purchaſe for theſe markets.

CHAP.

CHAP. XII.

Of Goats.

CAPRA, or goat, is a genus of quadrupeds belonging to the order of *pecoræ*; the horns are hollow, turned upwards, erect, and ſcabrous. There are eight foreteeth in the under jaw, and none in the upper; and they have no dog-teeth. There are a variety of ſpecies; among which are the *hircus*, or common goat, with arched carinated horns, and a long beard; the *ſhamois-goat* of Switzerland; the *bezoar-goat* of Perſia, and ſeveral others. The buck will copulate when a year old, and the female when ſeven months; but it is too early, and better to let them be older.

Goats are kept only in ſmall quantities, on account of their milk : They differ from ſheep in this, that they can feed on craggy places where ſheep dare not go, and live on many herbs that ſheep cannot eat ; particularly on ſome that operate as a violent ſtimulus to coition, which may in ſome degree account for their ſalacity. As ſoon as they have kids, they may be milked, as they have more than is neceſſary for ſupporting the kids ; and the more they are handled the better. They are marked and cut in the ſame manner as ſheep ; but, as they have no fleece, they require neither ſhearing, nor ſalving or ſmearing. In other reſpects, they are managed nearly the ſame as ſheep.

CHAP.

CHAP. XIII.

Of Herding, and the Shepherd's Dog, Crook, and Plaid.

WHEN it is conſidered that a farm frequently contains from 20 to 40 ſcore, or from 400 to 800 ſheep, it would occur that the herding of them can be no very eaſy taſk: It is rendered ſo, however, by the ſhepherd or herdſman having a good dog. The ſhepherd's dog as naturally hunts ſheep as the pointer ſhows where game ſit; and they as naturally run from them. The dog muſt be learned by threats and beating to deſiſt when ordered, otherwiſe he would run them down and kill them. When he is become ſomewhat

tractable in this reſpect, he may be learned to run to either ſide of the flock, by directing him with the hand to follow to a leſſer or greater diſtance—and a variety of other things. The ſagacity and tractability of this animal is ſurpriſing. The ſhepherd's dog is not without reaſon, thought by naturaliſts to be that from which all the others are deſcended; as he is in conſtant action, and ſeems to poſſeſs, in ſome degree, the qualities of all the reſt. The dog has ſuch a reſemblance to the fox and wolf that it is ſuppoſed by ſome to be the production of one or other of theſe animals civilized. The fox is the moſt likely of the two. The celebrated Count de Buffon ſeems to think, from having kept a dog with a young one of each ſome years together, without their ſhowing any deſire to copulate, that they are diſtinct ſpecies of animals. Some animals will not copulate when confined together; for inſtance elephants: But I recollect having ſeen, at the

houſe

houſe of an acquaintance, a ſhe-fox, which had been taken when young, and in a great meaſure tamed: An old dog about the houſe was going paſt it, while in ſeaſon, they at firſt ſnapt at one another; but all averſion immediately ceaſed, and they endeavoured to copulate, though from the oldneſs and inability of the dog it did not take effect. The Count's hypotheſis is not therefore founded. The being confined together at other times may have cauſed an averſion, or increaſed that which ſubſiſts between all wild animals, and the tame ones of the ſame ſort, inſomuch that this circumſtance could not even wear it off.

If we may believe the Spectator, it is well known by the learned that there was a temple upon Mount *Ætna*, dedicated to *Vulcan*, which was guarded by dogs of ſo exquiſite a ſmell (ſay the hiſtorians) that they could diſcern whether the perſons who came thither were chaſte or otherwiſe.

They

They uſed to meet and fawn upon ſuch as were chaſte, careſſing them as the friends of their maſter *Vulcan*, but flew at thoſe who were polluted, and never ceaſed barking at them till they had driven them from the temple.

It is poſſibly lucky for civil ſociety that either the breed, or the method of training them, is loſt; as even the being doubted muſt have been very diſagreeable, and ſufficient of itſelf to put an end to their exiſtence.

In ſome places it is convenient the ſhepherd, or herdſman, on occaſions, carry a gun to ſhoot at foxes, eagles, or even to fright away ravens, which, as ſoon as a ſheep lies down ſick, are ſure to fall upon it, and pick out its eyes, or eat a hole into its intrails, and thereby kill it. When the ſhepherd is the owner of the ſheep, or his ſon, and can obtain leave to ſhoot, and afford to take out a ſhooting licenſe, he may, beſides being uſeful with his gun and dog,

enjoy

enjoy the ſports of the field; but he ſhould be careful to follow them with moderation for hurting or neglecting his flocks.

In ſome places the ſhepherds have a crook, which is a long ſtaff, with a ſmall ſemi-circular turn at the end of it: The end of this is forked like a ſmall hammer; with this they eaſily catch hold of a ſheep by one of the legs without doing it any hurt. This is not generally uſed in very extenſive farms, as the ſheep are too wild. The dogs are, among other things, trained to catch any ſheep the ſhepherd, or herdſman, inclines.

It will poſſibly not appear that the ſheep is ſo very ſtupid an animal as it has been ſometimes repreſented. That it is not afraid of being ſtruck at, is eaſily accounted for. This is only learned by domeſtic animals from experience. They have had no experience of it being almoſt entirely managed by the ſhepherd's dog; their fleece alſo makes them not eaſily feel it. That they

they are afraid of ſound may be owing to its being uſed a good deal in hunting them. That they have always a leader is not the caſe. It has been obſerved, that, in place of remaining immoveable in ſnow, they are apt to go to their ſtells too ſoon, unleſs keeped out. If they know of no place of ſhelter, it would be aſtoniſhing ſagacity to do any thing elſe than remain where they were. Great part, therefore, of what has been ſaid, as to their ſtupidity, ſeems to be groundleſs.

It is convenient, too, that the ſhepherd, or herdſman, have a plaid. As he has to be much on the ground, to be expoſed to the ſun at one time, to rain another, and a third to ſtanding in a fall of ſleet or ſnow, this ſerves him on all theſe occaſions—"It "is from ſtorm a ſhelter, and from heat a "ſhade."

This plaid is made of fine woollen, generally five or ſix ells long, doubled at the middle, and made thereby two breadths of

of the cloth; ſometimes at the doubling the end is not cut out. It is coloured according to fancy. The lower kind of people in the ſouth part of the country ſome time ago wore them ſtripped black and white; the better ſort chequered. In the highlands they have been for time immemorial *tartan*, and differently ſhaped; by whom introduced, and whether manufactured in private families or not, is impoſſible to diſcover *. It appears to be very like the warlike dreſs uſed by the Greeks and Romans. It is thus deſcribed in the *Gentle Shepherd*.

" A tartan plaid ſpun of good hawſlock
" woo',
" Scarlet and green the ſets, the borders
" blue,
" Wi 'ſpraings like gowd and ſillar croſſ'd
" Wi black."

Ramſay,

* It may here be obſerved, that the ſtatute againſt wearing the Highland dreſs in certain parts of the kingdom, was ſome years ago repealed.

Ramſay, our Scots bard, has indeed devoted a whole poem, one of his beſt pieces, to the plaid; part of which I ſhall here inſert.

Ye Caledonian Beauties who have long
Been both the muſe and ſubject of my ſong,
Aſſiſt your bard, who, in harmonious lays,
Deſigns the glory of your plaid to raiſe:
How my fond breaſt with blazing ardour glows
Whene'er my ſong on you juſt praiſe beſtows,
Phœbus, and his imaginary Nine,
With me have loſt the title of divine;
To no ſuch ſhadows will I homage pay,
Theſe to my real Muſes ſhall give way:
My Muſes who, on ſmooth meand'ring Tweed,
Stray thro' the groves, or grace the clover mead,
Or thoſe who bathe themſelves where haughty Clyde
Does roaring o'er her lofty cat'racts ride:
Or you who on the gentle banks of Tay
Drain from the flow'rs the early dews of May,
To varniſh on your cheeks the ſmiling dye,
Or make the white the falling ſnow outvie.

And

And you who on Edina's ſtreets diſplay
Millions of matchleſs beauties every day,
Inſpir'd by you, what Poet can deſire
To warm his genius at a brighter fire?
I ſing the Plaid, and ſing with all my ſkill:
Mount then, O! Fancy, ſtandard to my will,
Be ſtrong each thought, run ſoft each happy line,
That gracefulneſs and harmony may ſhine,
Adapted to the beautiful deſign:
Great is the ſubject, vaſt th' exalted theme,
And ſhall ſtand fair in endleſs rolls of fame.
The Plaid's antiquity comes firſt in view;
Precedence to antiquity is due.
Antiquity contains a certain ſpell
To make even things of little worth excel;
To ſmalleſt ſubjects gives a glaring daſh,
Protecting highborn ideots from the laſh;
Much more 'tis valu'd when with merit place'd;
It graces merit, and by merit's grace'd.
O firſt of garbs! garment of happy fate!
So long employ'd, of ſuch an antic date;
Look back ſome thouſand years, till records fail,
And loſe themſelves in ſome romantic tale,
We'll find our godlike fathers nobly ſcorn'd
To be with any other dreſs adorn'd;

Before baſe foreign faſhions interwove,
Which 'gainſt their int'reſt and their brav'ry ſtrove.
'Twas they could boaſt their freedom with proud Rome,
And, arm'd in ſteel, deſpiſe the Senate's doom;
Whilſt o'er the globe their Eagles † they diſplay'd,
And conquer'd nations proſtrate homage paid,
They, only they, unconquer'd ſtood their ground,
And to the mighty empire fix'd the bound.
Our native Prince who then ſupply'd the throne,
In Plaid array'd, magnificently ſhone:
Nor ſeem'd his purple or his ermine leſs,
Tho' cover'd with the Caledonian dreſs.
In this, at court, the Thanes were gaily clad,
With this the ſhepherds and the hinds were glad,
In this the warrior wrapt his brawny arms,
With this our beauteous mothers veil'd their charms;
When ev'ry youth, and ev'ry lovely maid,
Deem'd it a diſhabille to want the Plaid.
O heavens! how chang'd! how little look the race,
When foreign chains with foreign modes take place;

When

† The Roman Enſign.

When Eaſt and Weſtern Indies muſt combine
To deck the fop, and make the gewgaw ſhine?
Thus, while the Grecian troops in Perſia lay,
And learn'd the habit to be ſoft and gay,
By luxury enerv'd, they loſt the day.

I aſk'd Varell, What ſoldiers he thought beſt?
And thus he anſwer'd to my plain requeſt:
'Were I to lead battalions out to war,
'And hop'd to triumph in the Victor's car,
'To gain the loud applauſe of worthy fame,
'And columns rais'd to eternize my name,
'I'd chooſe, had I my choice, that hardy race
'Who fearleſs can look terrors in the face;
'Who midſt the ſnows the beſt of limbs can fold
'In tartan Plaids, and ſmile at chilling cold:
'No uſeleſs traſh ſhould pain my ſoldier's back,
'No canvas tents make loaden axles crack;
'No rattling ſilks I'd to my ſtandard bind,
'But bright Tartana's waving in the wind:
'The Plaid alone ſhould all my enſigns be;
'This army from ſuch banners would not flee.
'Theſe, theſe were they, who naked taught the
'way
'To fight with art, and boldly gain the day.'
Ev'n great Guſtavus ſtood himſelf amaz'd,
While at their wond'rous ſkill and force he gaz'd.

With ſuch brave troops one might o'er Europe run,
Make out what Richlieu fram'd, and Lewis had
begun.

Degenerate men! Now ladies pleaſe to ſit,
That I the plaid in all its airs may hit,
With all the powers of ſoftneſs, mix'd with wit.
Ugly's the maſk, the fan's a trifling toy
To ſtill at church ſome girl or reſtleſs boy.
Fix'd to one ſpot the pine and myrtle ſhades,
But on each motion wait th' umbrellian plaids,
Repelling duſt when winds diſturb the air,
And give a check to every ill-bred ſtare.

If Sol himſelf ſhould ſhine through all the day,
We cloy, and loſe the pleaſure of his ray:
But if behind ſome marly † cloud he ſteal,
Nor for ſome time his radiant head reveal,
With brighter charms his abſence he repays,
And every ſun-beam ſeems a double blaze:
So when the fair their dazzling luſtres ſhroud,
And diſappoint us with a tartan cloud,
How fondly do we peep with wiſhful eye,
Tranſported when one lovely charm we ſpy?
Oft to our coſt, ah me! we often find
The pow'r of Love ſtrikes deep, tho' he be blind,
Perch'd on a lip, a cheek, a chin, or ſmile,
Hits with ſurpriſe, and throws young hearts in jail.

From

† Marbled.

From when the cock proclaims the riſing day,
And milk-maids ſing around ſweet curds and whey;
Till grey-ey'd twilight, harbinger of night,
Purſues o'er ſilver mountains, ſinking light,
I can unwearied from my caſement view
The Plaid, with ſomething ſtill about it new.

The Plaid itſelf gives pleaſure to the ſight,
To ſee how all it's ſets imbibe the light,
Forming ſome way which even to me lies hid,
White, black, blue, yellow, purple, green, and red.
Let Newton's royal club thro' priſms ſtare,
To view celeſtial dyes with curious care
I'll pleaſe myſelf, nor ſhall my ſight aſk aid
Of chryſtal gimcracks to ſurvey the Plaid.
How decent is the plaid when in the pew,
It hides th' enchanting fair from ogler's view.
Ye then who would your piety expreſs
To ſacred domes ne'er come in naked dreſs.

On Ida's height, when to the royal ſwain,
To know who would the prize of beauty gain,
Jove ſent his two fair daughters and his wife,
That he might be the judge to end the ſtrife:
Hermes was guide; they found him by a tree,
And thus they ſpake with air divinely free:
'Say, Paris, which is faireſt of us three?'

To Jove's high Queen, and the celeſtial maids,
He, ere he'd paſs his ſentence, cry'd, 'No Plaids!'
Quickly the Goddeſſes obey'd his call;
In ſimple Nature's dreſs he view'd them all,
Then to Cytherea gave the golden ball.
Great critics hail! our dread, whoſe love or hate,
Can with a frown or ſmile give verſe its fate;
Attend, while o'er this field my fancy roams,
I've ſomewhat more to ſay, and here it comes.

The tale no records tell, it is ſo old,
It happen'd in the eaſy age of gold,
When am'rous Jove, chief of the Olympean Gods,
Pall'd with Saturnia, came to our abodes,
A beauty hunting; far in theſe ſoft days,
Nor Gods nor men delighted in a chace,
That would deſtroy, not propagate their race.
Beneath a fir-tree, in Glentanar's † groves,
Where, ere gay fabrics roſe, ſwains ſung their loves,
Iris lay ſleeping in the open air;
A bright Tartana veil'd the lovely fair;
The wounded god beheld her matchleſs charms
With earneſt eyes, and graſp'd her in his arms:
Soon he made known to her, with gaining ſkill,
His dignity, and import of his will.

'Speak

† A large Wood in the Highlands.

'Speak thy desire,' the divine monarch said,
'Make me a goddess,' cried the Scotian maid;
'Nor let hard fate bereave me of my plaid.'
'Be thou the handmaid to my mighty queen,'
Said Jove, 'and to the world be often seen
'With the celestial bow, and thus appear
'Clad with these radiant colours as thy wear.'
Now say, my Muse, ere thou forsake the field,
What profit does the Plaid to Scotia yield?
Justly that claims our love, esteem, and boast,
Which is produce'd within our native coast.
On our own mountains grows the golden fleece,
Richer than that which Jason brought to Greece:
A beneficial branch of Albion's trade,
And the first parent of the Tartan plaid.
Our fair ingenious ladies hands prepare
The equal threeds, and give the dies with care:
Thousands of artists sullen hours decoy
On rattling looms, and view the webs with joy.

Fair Judges, to your censure I submit:
If you allow this poem to have wit,
I'll look with scorn upon those musty fools
Who only move by old worm-eaten rules.
But with the ingenious, if my labours take,
I wish them ten times better for their sake.

Who ſhall eſteem this vain, are in the wrong,
I'll prove the moral is prodigious ſtrong:
I hate to trifle; men ſhould act like men,
And for their country only draw their ſword and pen.'

CHAP.

CHAP. XIV.

Obſervations on paſturing Sheep in different Places, and on the Propriety of it in the Highlands and Iſles, and other Improvements therein.

IT will be obſerved that the foregoing ſheets are intended for ſtore-farms in the more mountainous parts of the country, which are nearly or altogether in a ſtate of nature, where great quantities are bred, rather than for improved lands, which have been therefore only ſlightly touched at, as having been often treated of as particularly connected with improvements in agriculture and huſbandry. There, indeed, there may be ſome room for trying im-

improvements of the breed, the country itſelf being altered: I cannot help, however, here taking notice, that Mr Wight, in his Survey of the State of Huſbandry, has been very unequal in his account of paſturage-farms, though one would have been led to think he had given an account of every place worth noticing. His ſurvey of this article is indeed ſuch as might have been expected from a gentleman traveling in a wheel-carriage; and accordingly he has left out between 20 and 30 miles ſquare, a country equal or ſuperior for ſheep to the greateſt part of thoſe he has paſſed through; viz. from Lord Braxfield's (now Lord Juſtice Clerk) to the Hill of Minnigaff; from Lord Elliock's to the Military-road, from Dumfries to Port-Patrick; and from Terraughty to Ayrſhire. Even this might have been excuſed, if he did not add, that ſheep are almoſt totally neglected in the county, of which the greater part of this makes a part, though

though he allows it to be as fit for them as any part of Scotland.

In regard to the lower incloſed parts of the country, it may be obſerved, that, where the land lies in graſs, and is plowed by turns, paſturing with ſheep enriches much faſter than with horſes or black cattle; and the firſt crop may be eat off by them, without potching the ground, and bring a ſward of graſs ſooner, and far ſuperior to what follows the taking a crop of hay, and nearly as profitable.

I have often thought part of the land betwixt Linton-bridge and the turn of Pentland-hills, near Edinburgh, might be paſtured with ſheep in the method before laid down, with greater advantage, than plowed to the top of ſome of the hills, and the corn ſtanding without, in the beginning of winter, among the ſnow, cramping and confining the ſheep-walk the greater part of the year. If too cold for breeding, it might be paſtured with dinmonts

or

or wedders, and is conveniently ſituated near the markets. They put one in mind of the proverb,

"The nearer the kirk, the farther frae grace."

Farmers, in theſe ſituations, are allured by proſpects they ſeldom attain. Four or five bolls of oats, to be worth twelve or fifteen ſhillings per boll, from an acre of ground that in paſture will not produce four or five ſhillings, has great weight; but, if they will take into account (abſtracting from the difference of expence between the two ways of management) how much is ſo frequently loſt by wind, rain, froſt, and ſnow, the mean quality of the grain, in general, from ſuch ſoils, and the little graſs that is produced for two or three years, when firſt left out, with the poor account that is made of the remainder of theſe grounds, where the half-ſtarved creatures, for they alſo have ſheep, have

have nothing left to feed upon, but the high and bare parts of ſuch mountains, and to be ſtarved great part of their time in folds; the balance will be greatly againſt the meaſure.

Before concluding, a matter of conſiderable conſequence preſents itſelf to our view. It has been made a queſtion whether or not the breeding of ſheep in the highlands would be adviſeable. If they ſhould be bred in great quantities, it is clear horſes and black cattle, particularly the latter, would be proportionally neglected; and no real advantage be gained by running from one extreme to another. There is reaſon to think black cattle were not introduced into the highlands and iſles by accident, and the rearing of them perſevered in merely from habit. The conſequence of purſuing this method of farming with ſheep too far there, would probably be overſtocking all the ſheep-markets, and, after hurting themſelves and others, in the

long-run returning to black cattle, which find a market over all England. So far as ſheep could be brought to paſture what is otherwiſe loſt, would be a real ſervice, and this may probably be extended ſo far as fiſheries and other improvements may occaſion any additional demand *. It is thought if ſheep were plenty in that country, mutton-hams well cured would be a profitable article of export to Denmark, and other northern countries, as well as to our Weſt-India iſlands; mutton-hams to people that have been uſed to them being the moſt agreeable of all ſalted proviſions. It is certainly proper, from underſtanding the different kinds of farming, to know what is moſt profitable to be kept in every part of the kingdom; without a deſire to know

* In caſe theſe ſheets ſhall meet with the approbation of the public, the authors hereof will probably publiſh what occurs to them on the management of black cattle.

know which, there can be no improvement. *Dean Swift* has ſaid, 'He who 'makes two blades of graſs to grow where 'only one grew before, deſerves better of 'mankind than the whole herd of politici-'ans.' But they who can, by bringing flocks to feed on it, turn to the ſupport of animal life a boundleſs extent of graſs, that has ſprung and decayed ſince the creation of the world, without giving nouriſhment to any living creature, deſerve ſtill better than this great benefactor of mankind—this raiſer of two blades of graſs. In the Hebrides, beſides the *tackſmen* mentioned in the Appendix to Part I. No. III. the other claſſes of perſons are the *proprietors*, ſeven or eight in number, who ſeldom live in the country, but leaves their eſtates to the management of their ſtewards, and the tackſmen of large poſſeſſions; and *the ſubtenants* of ſmall poſſeſſions, ſuch as herds or cottars enjoy in the ſouth country, make up

the only other claſs *; ſeven or eight of which poſſeſſions would make no very large farm. To enable theſe ſubtenants, after ſubſiſting themſelves, to pay their rents, they are obliged to engage in fiſhing a part of the ſeaſon, and are furniſhed with almoſt every thing they ſtand in need of from theſe tackſmen, at ſuch prices or ſhares of their gain as are in proportion to the riſk of never recovering them like bottomry debts. By any degree of attention to paſturage, many of theſe ſmall ſubtacks would be joined to make proper paſturage, or ſheep-farms, either for the tackſmen or a ſubtenant thereto. The ſmall ſubtenants accuſtomed before to fiſh part of the ſeaſon, would have recourſe to the fiſheries, as many of them as could find encouragement equal

* Poſſeſſions which appear fabulous, when mentioned by the author of *the Man in the Moon*, as enjoyed by his predeceſſors; but which Doctor Anderſon has put beyond a doubt, actually exiſt.

equal or ſuperior to their former manner of living, and the diſpoſal of their ſtock would fit them fairly out for it: Others would remain as cottars to ſerve as herdſmen or labourers to the tenants of theſe paſturage farms, in much eaſier circumſtances than they are. Drovers already go into that country to buy ſuch ſheep as are ready for ſale *. Wool-merchants would alſo go thither, notwithſtanding the diſtance from the market; for wool from the ſouthermoſt parts of Scotland is carried to Kilmarnock and Hamilton on horſes backs. Tenants and theſe cottars, as alſo at times theſe fiſhers, when not engaged in any thing relating to the fiſheries, would make a part of their wool into clothes for themſelves, and the reſt of what they kept into

* There are two fairs at Portree, in the Iſle of Sky, in the year: One in the laſt week of May, and the other in the laſt week of July, for horſes, nolt, ſheep, wool, &c.

ſale yarn; as there are perſons who come from Hawick into Ayrſhire, and from there and Kilmarnock into Galloway, to buy this kind of yarn, and ſkins of all ſorts; they will alſo go from there or from Kilmarnock, as well as from Perth, Inverneſs, Keith, and Huntly, into that country; or perſons from there carry it thither to market, and from Peterhead and Montroſe, the ſame as to wool. The articles of yarn and ſkins are the more attended to, that they are ready money articles. The ſale yarn, which goes from all parts of the kingdom to Hawick, it is believed the greater part of it is manufactured in England, which, by promoting the intereſts of both countries, tends to cement them the cloſer *. That thoſe people do not want an inclination to be engaged in this manner, is obvious

* How well this country is calculated for theſe improvements, will appear from the Appendix, No. I. and II. added to this Part.

vious from this fact, that within theſe twenty years it was not unuſual for them to go before the time of ſheering the ſheep as far as from Weſt Tarbet, nay even from Inverneſsſhire to the ſtewartry of Kirkcudbright, and to Dumfriesſhire, to gather what wool was left among the graſs loſt off the ſheep, and return home with it on their backs, added to what they could barter pins and other ſmall articles for.

By preſerving a due proportion, therefore, between paſturing with black cattle and ſheep, and between theſe and the fiſheries and manufactures, the country would probably be ſo much benefited as to be on equal terms with any other place in this part of the kingdom, and very much to the profit of the proprietors.

APPEN-

APPENDIX.

No. I.

THE Hebrides, or Weſtern Iſlands of Scotland, poſſeſs a kind of wool extremely valuable, being not only fine in quality, but poſſeſſing a peculiar ſilky ſoftneſs and elaſticity that is not to be equalled by any other wool in Europe *; of which *ſhawls* even are made little inferior to

* The quantity being ſmall cannot accommodate the inhabitants, and they are glad to get any kind to mix with it for common uſes.

to Indian ones, and which is particularly calculated for fine flannels, &c. which would enſure a ready ſale in any part of the world.—Report to the Lords of the Treaſury of facts collected in a Tour to the Hebrides, by James Anderſon, L. L. D. &c. Art. 4th, p. 7th.

No. II.

THE weſtern parts of the Highlands of Scotland are, for the moſt part, extremely ſteep, rugged, and mountainous, (and the ſame may be ſaid of many of the iſlands) forming dry healthy paſturage for ſheep, and would afford a much greater profit to the owners, if depaſtured with ſheep, than with black cattle. The iſlands likewiſe, which are at preſent poſſeſſed of a breed of ſheep, carrying finer wool than any in Europe,

rope, and which could be eaſily preſerved there without debaſement, or even improved ſo as to yield great quantities of wool of a quality ſuperior to any that is yet known, would, in many caſes, yield a return, if ſtocked with ſuch ſheep, perhaps tenfold greater than if paſtured with cattle *. Theſe fine wool'd ſheep are ſuffered to ſtroll about neglected in ſmall numbers, and no national benefit has yet been felt from the wool, though it might, if raiſed in ſufficient quantities, lay the foundation of woollen manufactories of certain kinds that would be unrivalled in other markets. At preſent, however, the natives, from never having been able to derive much advantage from the wool, ſcarcely know any thing of its value in a commercial light; and

* In place of the improvements in other parts of the country to meliorate the wool, it would only be neceſſary here to keep them from other ſheep for ſpoiling the breed.

and if they did, might be induced to ſmuggle it to other countries.—Illuſtrations of Report to the Lords of the Treaſury of Facts collected in a Tour to the Hebrides, by James Anderſon, L. L. D. F. R. S. F. S. A. Scot. &c. Letter H. p. 163.

FINIS.

ESSAY

ON THE

GENERAL OECONOMY

AND

MANAGEMENT

OF

BLACK CATTLE FARMS IN SCOTLAND,

UNDER A BREEDING STOCK;

Including the MANAGEMENT of the DAIRY:

With the moſt effectual methods of Preventing and Curing Diſeaſes to which ſuch Cattle are ſubject.

IN TWO PARTS.

PART I.—On the HISTORY thereof.
PART II.—On the preſent PRACTICE.

Pierides vitulam lectori paſcite veſtro.
VIRG. Eclog. 3.

EDINBURGH:
PRINTED FOR ELPHINGSTON BALFOUR.

M.DCC.LXXXIX.

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PART

PART I.

On the Hiſtory of Black Cattle, and the Dairy.

THE cow ſeems to be naturally a domeſtic animal. From its milk being ſo uſeful for the purpoſes of life, black cattle ſeem to have diſperſed farther throughout the world than even ſheep or goats: They appear to have extended where there is little elſe of paſturage, where the people lived probably, ſince black cattle were introduced, in other reſpects very much by hunting and fiſhing. The moſt ancient account we have of their being uſed for animal food, is the Patriarch Abram cauſing a calf to be killed for

an entertainment *; at which time, ſome progreſs had been made in the management of the dairy; for there is mention made of butter, as well as milk, being uſed on the ſame occaſion. But, as they are mentioned only accidentally, and not as any thing new, it is probable they were all uſed long before the flood; and particularly, that animal food was uſed from the firſt inſtitution of ſacrifices, as part of the victim was eat, in all nations, by the perſons officiating at offering ſacrifice.

The management of black cattle is a part of the art of paſturage. Wherever flocks are much treated of, there is generally mention of herds, which applies only to this part of the art.

We find many of the heroes at the Trojan war, or their predeceſſors, had tended herds. The Odyſſey tells us †, that the wealth of Ulyſſes, King of Ithaca, conſiſted

* Geneſis, ch. 18. v. 1.

† Book XIV.

ed of flocks and herds, the intendant over which was this Prince's particular friend and confident, and the ſon of a King, ſtolen away and ſold by pirates; and his place was conſidered as a place of dignity and truſt.

Theocritus, in one of his *Idyllia*, has given an enumeration of many illuſtrious perſons who had tended cattle *.

* This part of it is as follows:

" Alas! ſhe forgot, or perhaps did not know,
" That Bacchus fed herds in the valley below;
" That Beauty's * fair Queen fell in love with a ſwain,
" And help'd him his cattle to tend on the plain:
" Adonis, while living in groves, ſhe ador'd,
" And, when dead, ſhe in groves and in mountains deplor'd.
" If right my conjecture, Endymion I ween
" Like me too once tended his ſteers on the green:
" Yet

* *Venus.*

Cattle were, at the time of Homer, the medium of trade in Greece, as money is with us at preſent: Witneſs the exchange of armour between Glaucus and Diomed, in the 6th book of the Iliad.

" Brave Glaucus then each narrow thought reſign'd,
" Jove warm'd his boſom and enlarg'd his mind
" For Diomed's braſs arms, of mean device,
" For which *nine oxen paid*, (a vulgar *price*)
" He gave his own, of gold divinely wrought,
" *A hundred beeves*, the ſhining purchaſe *bought*."

The

" Yet the Moon * in this herdſman took ſuch a delight,
" That ſhe met him at Latmos, and kiſs'd him all night.
" Ev'n Cybele mourn'd for a herdſman, and Jove
" Snatch'd a boy from his flock to be waiter above."

This Idyllium, conſiſting of a dialogue between a herdſman and a town's lady, is by ſome aſcribed to Moſchus: But it is generally inſerted among the other Idyllia of Theocritus, and is very much in the ſame ſtile and ſpirit.

* *Diana.*

The oldeſt accounts I can obſerve of the making of cheeſe, are on Neſtor's entertaining Machaon, in the 11th book of the Iliad, and David's being ſent about the ſame time, or a little previous thereto, with a preſent of cheeſes to the captain of the hoſt: But, in both theſe, it is mentioned not as a thing newly diſcovered. It is ſtated in Dr Henry's Hiſtory of Great Britain, that part of this kingdom owe the art of making cheeſe to Scribonius, phyſician to the Emperor Claudius; but he does not think all the kingdom were ignorant of it. If a Greek colony ſettled in Scotland, or if, according to Sir Iſaac Newton, the Tyrians traded to Britain and to Thule at this period, it is probable the art was underſtood here as ſoon as among the Romans.

The natural hiſtory of the animal here treated of is as follows:

Bos, in zoology, is a genus of quadrupeds belonging to the order of pecora.

The characteriſtics of this genus are taken from the horns and teeth. The horns are hollow within, turned forward, in the form of a creſcent. There are eight fore-teeth in the under jaw, and none in the upper, the place being ſupplied by a hard membrane; and there are no dog-teeth in either jaw.

The *taurus*, including the common bull and cow, when horned, has cylindrical horns, bent outward, and looſe dewlaps.

After eating they chew the cud, an account of which would be here both unneceſſary and tedious.

The cow comes to the age of puberty in eighteen months, and the bull in two years. From three to nine they are in full vigour. When older they are fit for nothing but to be fed and killed, and not ſo tender or proper for food as when younger.

Virgil, in ſpeaking of the method of managing them, goes on thus:

Seu

Seu quis, Olympiacae miratus praemia palmae,
Paſcit equos; ſeu quis fortis ad aratra juvencos;
Corpora praecipue matrum legat. Optuma torvae
Forma bovis, cui turpe caput, cui plurima cervix,
Et crurum tenus a mento palearia pendent.
Tum longo nullus lateri modus: omnia magna:
Pes etiam, et camuris hirtae ſub cornibus aures.
Nec mihi diſpliceat maculis inſignis et albo,
Aut juga detrectans; interdumque aſpera cornu,
Et faciem tauro propior, quaeque ardua tota,
Et gradiens ima verit veſtigia cauda.
Ætas Lucinam, juſtoſque pati hymenaeos
Definit ante decem, poſt quatuor incipit annos:
Caetera nec foeturae habilis, nec fortis aratris.
Interea, ſuperat gregibus dum laeta juventas,
Solve mares: mitte in Venerem pecuaria primus,
Atque aliam ex alia generando ſuffice prolem.
Optima quaeque dies miſeris mortalibus aevi
Prima fugit; ſubeunt morbi, triſtiſque ſenectus:
Et labor, et durae rapit inclementia mortis.
Semper erunt, quarum mutari corpora malis.
Semper enim refice: ac, ne poſt amiſſa requiras,
Anteveni, et ſubolem armento ſortire quotannis.

Rurſus cura patrum cadere, et ſuccedere matrum
Incipit; exactis gravidae cum menſibus errant,

Non

Non illas gravibus quiſquam juga ducere plauſtris,
Non ſaltu ſuperare viam ſit paſſus, et acri
Carpere prata fuga, fluvioſque innare rapacis.
Saltibus in vacuis paſcant, et plena ſecundum
Flumina: muſcus ubi, et viridiſſima gramine ripa,
Speluncaeque tegant, et ſaxea procubet umbra.
Eſt lucos Silari circa ilicibuſque virentem
Plurimus Alburnum volitans, quoi nomen Aſilo
Romanum eſt, oeſtrum Graii vertere vocantes;
Aſper, acerba ſonans: quo tota exterrita ſilvis
Diffugiunt armenta; furit mugitibus aether
Concuſſus, ſilvaeque et ficci ripa Tanagri.
Hoc quondam monſtro horribilis exercuit iras
Inachiae Juno peſtem meditata juvencae.
Hunc quoque, nam mediis fervoribus acrior inſtat,
Arcebis gravido pecori, armentaque paſces
Sole recens orto, aut noctem ducentibus aſtris.
Poſt partum cura in vitulos traducitur omnis:
Continuoque notas et nomina gentis inurunt:
Et quos aut pecori malint ſubmittere habendo,
Aut aris ſervare ſacros, aut ſcindere terram;
Et campum horrentem fractis invertere glebis.
Caetera paſcuntur viridis armenta per herbas.
Tu quos ad ſtudium atque uſum formabis agreſtem,
Jam vitulos hortare, viamque inſiſte domandi,
Dum faciles animi juvenum, dum mobilis aetas.

Ac

Ac primum laxos tenui de vimine circlos
Cervici ſubnecte: dehinc, ubi libera colla
Servitio adfuerint, ipſis e torquibus aptos
Junge pares, et coge gradum conferre juvencos;
Atque illis jam ſaepe rotae ducantur inanes
Per terram, et ſummo veſtigia pulvere ſignent.
Poſt valido nitens ſub pondere faginus axis
Inſtrepat, et junctos temo trahat aereus orbis.
Interea pubi indomitae non gramina tantum,
Nec veſcas ſalicum frondes, ulvamque paluſtrem,
Sed frumenta manu carpes ſata: nec tibi foetae,
More patrum nivea implebunt mulctraria vaccae,
Sed tota in dulcis conſument ubera natos.

Sed non ulla magis viris induſtria firmat,
Quem venerem et caeci ſtimulos avertere amoris,
Sive boum, ſive eſt cui gratior uſus equorum.
VIRG. *Georg.* 3.

The generous youth, who, ſtudious of the prize,
The race of running courſes multiplies,
Or to the plow the ſturdy bullock breeds,
May know, that from the dam the worth of each proceeds.
The mother cow muſt wear a louring look,
Sour headed, ſtrongly neck'd, to bear the yoke.

Her

Her double dewlap from her chin deſcends:
And at her thighs the pond'rous burthen ends.
Long are her ſides and large, her limbs are great;
Rough are her ears, and broad her horny feet.
Her colour ſhining black, but fleck'd with white,
She toſſes from the yoke; provokes the fight:
She riſes in her gait, is free from fears;
And in her face a bull's reſemblance bears:
Her ample forehead with a ſtar is crown'd;
And with her length of tail ſhe ſweeps the ground.
The bull's inſult at four ſhe may ſuſtain,
But, after ten, from nuptial rites refrain.
Six ſeaſons uſe, and then releaſe the cow,
Unfit for love and for the lab'ring plough.
Now, while their youth is fill'd with kindly fire,
Submit the females to the luſty ſire:
Watch the quick motions of the friſking tail,
And ſerve their fury with the ruſhing male,
Indulging pleaſure left the breed ſhould fail.
In youth alone unhappy mortals live;
But ah! the mighty bliſs is fugitive:
Diſcolour'd ſickneſs, anxious labours come,
And age and death's inexorable doom,
Yearly thy herds in vigour will impair;
Recruit and mend them with thy early care:

Still

Still propagate, for ſtill they fall away,
'Tis prudence to prevent the entire decay.

The male has done, thy care muſt now proceed
To teeming females and the promis'd breed.
Firſt let 'em roam at large, and never know
The taming yoke, or draw the crooked plough.
Let 'em not leap the ditch, or ſwim the flood,
Or lumber o'er the meads, or croſs the wood,
But range the foreſt by the ſilver ſide
Of ſome cool ſtream, where nature ſhall provide
Green graſs and fattening clover for their fare,
And moſſy caverns for their noon tide lare,
With rocks above to ſhade the ſharp nocturnal air.
About th' Alburnian groves, with holly green
Of winged inſects mighty ſwarms are ſeen.
This flying plague (to mark its quality)
Oeſtros the Grecians call, Aſylus we:
A fierce loud buzzing breeze, their ſtings draw blood,
And drive the cattle gadding thro' the wood.
Seiz'd with unuſual pains, they loudly cry,
Tanagrus haſtens thence, and leaves his channel dry.

This

This curſe the jealous *Juno* did invent,
And firſt employ'd for *Jo*'s puniſhment.
To ſhun this ill the cunning leach ordains
In ſummer's ſultry heats, (for then it reigns)
To feed the females e'er the ſun ariſe,
Or late at night when ſtars adorn the ſkies.
When ſhe has calv'd, then ſet the dam aſide,
And for the tender progeny provide.
Diſtinguiſh all betimes with branding fire,
To note the tribe, the lineage, and the ſire;
Whom to reſerve for huſband of the herd,
Or who ſhall be to ſacrifice preferr'd;
Or whom thou ſhalt to turn thy glebe allow,
To ſmooth the furrows and ſuſtain the plough.
The reſt, for whom no lot is yet decreed,
May run in paſtures and at pleaſure feed.
The calf by nature and by genius made
To turn the glebe, breed to the rural trade.
Set him betimes to ſchool, and let him be
Inſtructed there in rules of huſbandry
While yet his youth is flexible and green,
Nor bad examples of the world has ſeen.
Early begin the ſtubborn child to break;
For his ſoft neck a ſupple collar make
Of bending oſiers; and (with time and care
Enur'd that eaſy ſervitude to bear)

Thy

Thy flattering method on the youth purſue,
Join'd with his ſchool-fellows, by two and two,
Perſuade 'em firſt to lead an empty wheel,
That ſcarce the duſt can raiſe, or they can feel.
In length of time produce the lab'ring yoke
And ſhining ſhares, that make the furrow ſmoke.
E're the licentious youth be thus reſtrain'd,
Or moral precepts on their minds have gain'd,
Their wanton appetites not only feed
With delicates of leaves, and marſhy weed,
But with thy ſickle reap the rankeſt land,
And miniſter the blade with bounteous hand;
Nor be with harmful parſimony won
To follow what our homely ſires have done,
Who fill'd the pail with beeſtings of the cow,
But all the udder to the calf allow.

Wouldſt thou their courage and their ſtrength improve,
Too ſoon they muſt not feel the ſtings of love.

DRYDEN.

Thus far Virgil, who, in this beautiful Poem, has joined utility to amuſement.

There are ſome things, however, peculiar to Scotland, in the management of black cattle, which could not poſſibly be thought of among the Romans. The ſkin of this animal was probably not ſo valuable to them as to us. We have, indeed, no uſe for ſhields compoſed of ſeven folds of bull's hides; but we certainly exceed them in the uſe of leather for carriages, horſe-mounting, for ſhoes and boots, and a variety of other purpoſes; not to ſpeak of pen caſes, ſnuff-boxes, and cannons, made of leather. We, indeed, uſe horſes much more than oxen for the plough. But though they, no doubt, lived on the fleſh of black cattle, as an article of food, and may have known the method of feeding their cattle within the houſe in winter, whereby a valuable manure is gained, it is more than probable they were ſtrangers to the breeding of large quantities of cattle, and bringing them to a certain age, to be ſold into another part of the empire for fattening

fattening and being killed: Nay, it will be ſhown afterwards, that it is doubtful if they underſtood the art of caſtrating or cutting them, to meliorate their fleſh. If this was not practiſed, there would be the leſs demand for them as an article of living. However this may be, we find no precepts that have any reference to breeding, with a view to ſale for fattening and being killed, in any other part of their dominions.

For theſe reaſons, a few words on that branch of Paſturage which relates to black cattle, particularly in the mountainous or muirland parts of Scotland, may not be altogether void of utility.

PART II.

On the Preſent Practice of Breeding and Managing Black Cattle, and of the Dairy.

COWS, in the natural courſe of things, have their calves about the time the new graſs comes up, as they are generally in ſeaſon in the ſummer months ſooner or later, according to the place of the country in which they are, and go nine months with young: But, by good feeding, they will be in ſeaſon at any time of the year; ſo that calves, in general, may be had nearly at any period wiſhed for.

When a cow has a calf, it need get nothing but milk the firſt three or four weeks, which it ſhould get frequently rather than

in

in great quantities, particularly for the firſt eight or ten days; it may then have ſome graſs laid before it. When it begins to eat, it will be ſufficient to let it get milk at the uſual times of milking the cows. After ſome weeks, when they are ſomewhat grown up, and where they breed great quantities, when there are ſeveral together, they may be put into an incloſure of good graſs. When the cow has been kept in for ſome days after calving, ſhe may go out with the reſt of the cows. If ſhe calves in the winter, ſhe may get barley or beer-chaff for a day or two, and water ſomewhat warmed, about the warmneſs of new milked milk, to drink. If there are ſeveral new-calved at this ſeaſon, they are for ſome time taken care of together, and not put out to paſture ſo much as the reſt, but fed moſtly in the houſe.

As the bull is rather a fierce and terrible animal, particularly when the cows are in ſeaſon, and he meets with another bull;

and, as his uſe is to propagate the ſpecies, calves are caſtrated, or cut, like lambs, when a few weeks old. This is done by one perſon ſitting on the ground, and holding the calf between his legs; another giving the *ſcrotum*, or cod, a cut on each ſide, and drawing the teſticle, or ſtone, in ſuch a way as not to break the ſtring. This perſon ſhould hold well back with the other hand, that no part be ſtretched. This operation remarkably ſoftens the nature of the animal: It renders him mild and tractable, without diminiſhing his ſtrength, which is rather increaſed, as he is more ſettled to gather food; and, in countries where it is uſual to plough with oxen, this makes him fitter for that purpoſe in every reſpect. When grown up, they are, in Scotland, called *ſtots*. When not cut till ſome years old, they loſe but few of the qualities of bulls, and are more untractable than thoſe cut while calves. Thoſe cut when ſome years old, are called *ſeggs*.

ſeggs. As the firſt is the moſt eaſily performed, and moſt efficacious, it is probably that which has been always moſt practiſed: Hence *oxen* and *ſtots* are poſſibly, ſtrictly ſpeaking, terms exactly ſynonimous; though *oxen*, or *ouſen*, are ſometimes words uſed in this country in ſpeaking of thoſe of the firſt kind, which are particularly uſed for ploughing. The practice of caſtrating this animal is ſuppoſed to be nearly as old as the world, as there is word of oxen almoſt as far back as of any thing. But, though they are mentioned both among the Egyptians * and Greeks †, it is ſomewhat ſurpriſing Virgil, in his firſt

* *Geneſis*, chap. 12. ver. 15. & 16. "And the "woman was taken into Pharaoh's houſe; and he "entreated Abram well for her ſake; and he had "ſheep and *oxen*."

† "Οικον μεν πρωτιστα, γυναικα τε, βουν τ' ἀροτηρα."
"Domum quidem primum, uxoremque, bovemque arator"
Heſiod. Operum et Dierum.

firſt Georgic, ſpeaks of ploughing with bulls * ; and, in the third, at what time a cow ſhould not plough ; when with calf, or after ten years old † : From whence one would almoſt be led to doubt of the Romans having oxen, otherwiſe they would have uſed them for that purpoſe.

It will be neceſſary, before Whitſunday, to leave off paſturing in the meadows, on account of the crop of hay intended for the uſe of the following winter.

The cows, in ſummer, generally go in the day-time in the low grounds neareſt to the meadows and corn lands, and get into the meadow and corn ſtubbles as ſoon as convenient : They are put into a fold near the houſe, or bar loaning, at night.

The

* " Depreſſo incipiat jam tum mihi *taurus* aratro."
" —— Fortis invertant *tauri* ——."
" Exercite viri *tauros* ; ſerile hordea campis."

† See quotation from the 3d Georgic in the firſt part hereof.

The ſtots, or yeld nolt, go in ſummer on the hilly ground; and, unleſs the low grounds are well fenced with dikes, to prevent their getting into the corn and meadow, they are put ſometimes into a large moſs, by which there is a round about difficult entrance, at night, if there is no fold convenient for them. If there are large dry moſſy brows which afford ſhade, they may alſo go thither in the middle of the day, when very warm.

When the ſummer is ſomewhat ſet in, and the weather good and warm, the cows may be ſet out in the morning, and brought in to the milking when it grows warm; ſtand till the day begins rather to cool; then go out and remain till night, when they are again milked. The calves are generally allowed to ſuck for ſome time, to make the cows give the milk, where they breed young beaſts; they are then tied up till the cow is milked a while; and afterwards let ſuck what remains, and

ſent

ſent back to their incloſure. When the weather is moderately cool, that they will ſtand without, the milking is often done at the gate of the place where the calves are kept, or in a loan; and the calf is held by the cow-herd while the dairy-maid is milking the cow.

In places where they breed cattle, as in the Highlands of Scotland, the counties of Galloway, and other places, the method of managing the dairy is as follows: The milking-ſtoups, or pails, are emptied thro' a milk-ſeyl into veſſels for keeping the milk, about twenty inches wide, and ſeven or eight inches deep, which, it is thought, makes moſt cream. This milk-ſeyl is made like a large wooden bowl, with a circular place about three inches diameter, cut out in the bottom, and covered with a fine net-work of braſs-wire; or, in many places, with coarſe linen. The cream is put into a churn, and churned once or twice a week, or oftener, with the common churn-

churn-ſtaff, with the hands; or with a barrel-churn turned like a grind-ſtone, or driven with water. When the cream is broken, and the butter-milk and butter diſtinguiſhable from one another, the butter is collected, waſhed in cold water to harden it, beat into a proper conſiſtency of cloſeneſs. What is intended for immediate uſe either for the family or the market, is made into any ſhape that is wiſhed, and the reſt ſalted into ſuch veſſels as are moſt ſuitable for the way it is to be afterwards diſpoſed of. This ſort draws always a very conſiderable price for ſalving ſheep in the ſouth country; they frequently import it both from England and Ireland. There is always, therefore, a certain demand for it, if it could be got any way ſent within the reach of the ſouth country people. After taking the cream off the milk, it is, in the ſummer ſeaſon, when the graſs is good, made lukewarm, and ſteeped, by putting a quantity of the juice,

juice, made of the yearning of a calf, into it. The whey is then preſſed out of it; the curd broken ſmall; ſome ſalt put into it, wrapt up in a coarſe linen cloth, and then put into the cheſſel, which gives it its ſhape. The cheſſel is a diſh of the ſhape the cheeſe is intended to be, with holes bored in the bottom to let out the whey, made pretty ſtrong, to ſtand the preſſure neceſſary for ſqueezing out the whey. If the cheeſe is too large for the cheſſel, it may be rolled about at the top, to keep it in ſhape, with any thing that is long and narrow, as a ſtrap, gartering, &c.; if too ſmall, a little hay may be put in beneath it. It muſt be frequently turned, the different ſide down. If, at turning, any part ſtands out at the edges, it may be pared off. When the cheeſe has been long enough in the cheſſel, it is laid on a board to dry. If the cheeſe is intended to be made richer, it may be made of the milk new milked, or cream put into the curds when

when nearly all ſeparated from the whey. The whey is afterwards put into a pot on the fire, and ſtirred about with a ſtick, like the ordinary pot-ſtick uſed in making Scots broth, till it be nearly boiling, when a kind of curd, called *crop-whey*, gathers on the top of it, which is ſkimmed off, and uſed for food, and affords a ſtrong aliment. This ſeems to be nearly what is mentioned in *Dr Henry's Hiſtory of Great Britain*, as deſcribed by *Pliny*, and mentioned in *Martin's Deſcription of the Weſtern Iſlands*, as practiſed there, and which is as follows: "*Oon*, which in Engliſh ſignifies *froth*, is "a diſh uſed by ſeveral of the iſlanders, "and ſome on the oppoſite main land, in "time of ſcarcity, when they want bread. "It is made in the following manner: A "quantity of whey is boiled in a pot; "and, when it is wrought up to the mouth "of the pot with a long ſtick of wood, "having a croſs at the lower end of it, it "is turned about like the ſtick for making

" chocolate; and, being thus made, it is " ſupped with ſpoons: It is made up five " or ſix times in the ſame manner; and " the laſt is always reckoned beſt, and the " firſt two or three frothings the worſt *." The frothing may increaſe the quantity in appearance, without increaſing the ſubſtance in reality; if this is not confounded " with frothing the milk like a ſylla- " bub, with ſuch a ſtick as is uſed for cho- "" colate," as mentioned by Mr Boſwell in his Journal.

After the milk is taken out of the milk-diſhes, they muſt always be very carefully waſhed, or ſcalded with boiling water, to prevent its ſouring, particularly in warm weather.

Where breeding only is thought of, in low warm parts of the country, it will do to let the cow and calf go together like ewes and lambs, which, in good paſture, makes excellent beaſts.

In

* Vol. 2. p. 358. 8vo edit.

In ſome places they kill almoſt all the calves, as they find the cows will give the milk pleaſantly enough without them, and truſt to making butter and cheeſe. This depends upon the place, and upon the quantity of milk they produce, or the beaſts they bring. The beſt of the true breed of the country is poſſibly, in general, preferable, for that country, to any other, except in improved lands, where the country itſelf is altered. Thus, cows bred in Ayrſhire are poſſibly beſt for that place, as they are more indifferent about their calves, and the people greatly ſet on milk for butter and cheeſe; a true Galloway breed for that part of the country, as they are more unwilling to give the milk without the calf, and they wiſh to breed cattle to go to England. From experiments, it appears the place has ſome effect; for a cow bred in Ayrſhire, and brought into Galloway, in the ſpace of two or three years, turns more like thoſe of that coun-

try; and one taken from there to Ayrſhire, more like the Ayrſhire ones. Poſſibly a little highland breed is beſt for the Highlands of Scotland.

In places where the calves are killed, to make them fatten quickly, give them a few raw eggs every day, with boiled milk and a little bread, which will make them excellent veal in three or four weeks.

In chooſing a calf for a bull, it ſhould be conſidered, that he ſhould be the moſt handſome of his ſpecies; large of the breed he is of, deep, and ſtrong of the hair; but not much curled; well made, and in good heart: He ſhould have a black eye, a fierce aſpect, but an open front; a ſhort head, no horns, long and ſhaggy ears, a ſhort and ſtraight noſe, large and full breaſt and ſhoulders, high-arched neck, firm reins, a ſtraight broad back, thick fleſhy legs, and a long tail well covered with hair.

A milk-cow ought to be choſen young, fleſhy, and with a briſk eye.

The hair of both ſhould be gloſſy, thick, and ſoft; for, when otherwiſe, the animal is either not in health, or has a weakly conſtitution.

Oxen intended for labour, the beſt time for inuring them to it, is about two and a half, or three years old; though Virgil's method of beggining to train them, ſeems to point at learning them by degrees from an early period, which muſt make it eaſier, and them better broke.

Twenty cows and a bull are about a proper quantity for a reaſonable farm, if it is not ſtocked altogether with black cattle; in which caſe the number may be increaſed.

It would be going too far off the ſubject to take notice of the winning the hay, on which they are to feed in the winter; the mowing it; the ſcattering the ſwaths equally upon the ground; the raking it; the taking it to the green; the laying out,

or tedding it, to dry; the turning it in rows, by one perſon following another, with rakes; the putting it into cocks, when afraid of rain; the ricking it; the leading it, or carrying it in truſſes to the ſtack; the ſtacking it. This ſubject, to do it juſtice, would require an eſſay by itſelf. In ſome places in England, they do not put it into ricks, but take it directly to the barn or ſtack, and let it heat; but, in ſome wet ſtormy places in Scotland, the danger is rather of not getting it dry enough; for which reaſon, they are obliged to renew the ricks, make them ſtraight if inclined to one ſide, and put a new head on them, till they have about all win, and then ſtack it in one day, if poſſible, to avoid the riſk of having it wet or rotten. The ſcythe, the rake, the wyle, or thraw-crook, for twining ropes, are, in many places, all the inſtruments uſed, the ricks being thrown by armfuls; in other places a pitchfork is uſed.

In

In the month of November, the cattle may be begun to be kept in at nights. During the winter, the cows will go out in good days, or in the middle of the day: They muſt be foddered with hay or ſtraw when they come in; at ſupper-time; and get a little in the morning. They will even eat the horſes orts; that is, what they draw down, waſte, or refuſe to eat. They are new milked before they go out, and at night.

Where the people depend chiefly on breeding cattle, the calves, which are againſt winter called ſtirks, are fed on ſome of the fineſt of the hay, in a part of the byre by themſelves; and they go by themſelves in the winter, and the following ſeaſon, on the beſt part of the outfield ground.

Such of the quey ſtirks as are not intended to be kept for cows, are, by perſons who follow it for their buſineſs, made heifers, and go among the ſtots, with whom they are afterwards ſold.

There

There are two methods of management practiſed in farms where black cattle are bred, according to the option of the farmer.

The firſt is, to bring up all theſe ſtirks till they be a proper age for ſale, by wintering them within the following winter, letting them go on the hilly ground in ſummer, and then ſelling them; or keeping them another year, lying without, if there be any low ground convenient for it, and ſelling them in the ſpring. By this method the greater part is profit, without laying out money, but would require a large farm to have any quantity for ſale, particularly if there were any other ſtock and a crop on it.

The other method is: About Martinmas-Wedneſday *, or before it, to buy in ſeveral year-olds here and there, one or two in a place, probably from the cottars and others, (who have a cow and one follower

* A market the firſt Wedneſday after Martinmas.

lower only by their bargain, and are therefore obliged to ſell their ſtirks), till they get ſo many as, with their own, they can conveniently keep; to winter them; put them out to graſs the next ſummer, till their hair be cleaned after the lying within, and they be in good order, and then ſell them; or, keep them without the following winter, and ſell them in the ſpring. The winters theſe laſt are within, they would be as well in a houſe by themſelves. Theſe yeld beaſts may be fed on much coarſer food than cows and calves, or ſtirks, while kept within, and ſhould be always out at paſture through the day. When they lie without at nights in winter, they ſhould have a little fodder upon the graſs, once a day or twice, according to the quality of the paſture, or ſtate of the weather.

This method of buying in, and ſelling out, is preferred by great numbers of people, as they are laid in now and then, when

when young, at a ſmall price; it makes up parcels of one age and ſize, by which they ſell the better; it is often making ſomething of coarſe paſture and coarſe hay, and gives a ſum of money together.

Particular care muſt be taken, that all kinds get water regularly, and that the ice be broke for them in time of froſt for this purpoſe.

Bulls, cows, and oxen, are fond of licking themſelves, eſpecially when lying at reſt. But this practice ſhould be diſcouraged as much as poſſible; for, as the hair is an indigeſtable ſubſtance, it lies in the ſtomach or guts, and is gradually coated by a glutinous ſubſtance, which, in time, hardens into round ſtones of a conſiderable bulk, which ſometimes kills them, but always prevents their fattening, as the ſtomach is rendered incapable of digeſting the food ſo well as it ought. Some of them, indeed, ſeem ſo fond of hair, as to eat the tails of the reſt; others are diſpo-

ſed to eat clothes where they can find them. Both theſe, particularly the former, ſhould be ſold off, or kept alone and fattened for killing, as ſoon as diſcovered. When they are ſeen chewing bones, or pieces of wood, which they are much addicted to, the bones or wood ſhould be taken from them and buried. Some have conjectured, that their chewing clothes or wood is to make their teeth right, which are affected with ſome kinds of graſs, much in the ſame way as our's are with eating fruit. But this will hardly account for their chewing bones, which would put them to pain if their teeth were in this ſituation. Some places, however, are worſe for theſe faults than others.

A very young boy can attend to the yeld nolt in ſummer and harveſt. The cows are poſſibly the moſt difficult to tend. The boy or old man who looks after them will require to have a peaceable dog. His

taſk

taſk requires more patience and care than activity.

The age of black cattle may be diſtinguiſhed by their teeth and horns. The firſt fore-teeth fall out at the age of ſix months, and are ſucceeded by others of a darker colour, and broader. At the end of ſixteen months, the next milk-teeth likewiſe fall out; and, at the beginning of the fourth year, all the fore-teeth are renewed, and then they are long, pretty white, and equal. However, as the animal advances in years, they become unequal, and blackiſh. For every year above three, it is believed the horns acquire an additional ring as long as they live.

Cows, when their teeth appear to be failing, are ſold off.

Ox-beef is very nouriſhing, and yields a ſtrong aliment. The fleſh of a cow, when well fattened and young, is not much inferior;—of a heifer, is better than either. Veal is well taſted, and eaſy of digeſtion.

Bull-

Bull-beef is hard, tough, and dry; for which reaſon, it is not much uſed for food. A ſegg is a degree better; on which account, when a bull grows rather old for breeding, he is ſometimes made a ſegg of, and afterwards fattened and killed.

Thoſe ſent to England to be ſtill further fattened, and killed there, do not generally exceed five years old.

In improved lands, where turnips are raiſed in great quantities, they may be given to the yeld beaſts in winter, as well as hay or ſtraw, which will make a leſs quantity of either of theſe do; but this food is not ſo proper for milk cows, as it is apt to give the milk a diſagreeable taſte.

Such as are intended for beef ſhould have no fatigue in going to ſeek their food, and ſhould be kept on fenced graſs.

The northern countries in Europe produce the beſt black cattle. In general, they bear cold better than heat; for this reaſon, they are not ſo plenty in the ſouth-

ern countries. There are but few in Aſia, to the ſouth of America, or in Africa, beyond Egypt and Barbary. America produced none till they were carried there by the Europeans. But the largeſt are to be met with in Denmark, Podolia, the Ukrain, and among the Calmuck Tartars; likewiſe thoſe of Ireland, England, Holland, and Hungary, are much larger than thoſe of Perſia, Turkey, Greece, Italy, and Spain. But thoſe of Barbary are the leaſt of all. In all mountainous countries, as Wales, the Highlands of Scotland, the black cattle are exceedingly ſmall, but hardy, and, when fattened, make excellent beef, much finer than Engliſh or Iriſh, (thoſe in the Lowlands of Scotland are only a degree bigger), which much increaſes the demand for black cattle from Scotland, and points out the folly of endeavouring too much to enlarge the breed, when it muſt be at the expence of the fineneſs, or make a broken breed,

which

which is poſſibly the worſt of any. In Lapland they are moſtly white. Whether the whiteneſs is owing to a breed partly white having been introduced, as a few white ones have a conſiderable effect in a ſtock, in making the greater part white, or to the climate, by their having perpetual ſnows before their eyes while breeding, is uncertain.

The bull, cow, and ox, naturally live about fourteen or fifteen years.

Virgil's inſtructions, of not letting the cows leap ditches, ſwim rivers, &c. when with calf, are exceedingly proper. I cannot pretend to ſay any thing of breeding oxen for the draught, or of the inſtruments uſed therein; but his directions for training them to it, carry ſufficient evidence from the face of them of their propriety. Ploughing, in Scotland, is for the moſt part done with horſes, and, where they have not a great deal to do, with horſes which ride occaſionally at other times.

Black cattle are liable to ſeveral diſeaſes. Calves ſometimes have the *rickets*. Black cattle of all kinds in a dry ſummer, or in time of froſt, if care be not taken that they get water ſomewhat regularly, are ſubject to a diſeaſe, called the *moor-ill* or *red-water*. Oil is ſometimes given as a cure for it. The *rot* is a diſeaſe to which black cattle are ſometimes though not very much liable. Change of paſture, and, if within, ſplit-peaſe and bran, and ivy leaves, may be tried for it. *Weaſel-blowing* is another complaint to which cattle kept within doors are ſubject; its name points out the ſuppoſed cauſe, the breath of a weaſel in the crib or wall of the byre, blown into the mouth or noſtrils of the animal. Leather or feathers burnt in the crib before them is the common cure for it. *Elf-ſhooting* is a complaint which ſeizes them; for want of knowledge of the real cauſe of which, it has been aſcribed to an imaginary

nary one *. There is a kind of graſs, called elf-ſhot graſs, which is boiled and given them for it; it has poſſibly got its name from the uſe it is applied to. The *crotoch*, or ſwelling of the feet, depends on the paſture being wet, ſour, and full of galls. Old women are generally the beſt hands to apply to when any thing goes wrong

* "There every herd, by ſad experience, knows,
"How, wing'd with fate, their *elf-ſhot* arrows fly,
"When the ſick ewe her ſummer food foregoes,
"Or ſtretch'd on earth, the heartſmit heifers lie."

Ode on the Popular Superſtitions of the Highlands of Scotland, by Mr William Collins. In the Tranſactions of the Royal Society of Edinburgh, 1788.

"When Brawny *elf-ſhot* never mair came hame,
"When Tibby kirn'd, and there nae butter came,
"_____;
"You Lucky gat the wyte o' a' fell out;
"_____."

Gentle Shepherd.

with black cattle, particularly thoſe who have been all their life among them. If we may believe hiſtory, the art of medicine was, in one period of ſociety, entirely in their hands; they ſtill have reſerved part of what relates to children; and the preſent ſubject is almoſt excluſively their own.

There is a diſeaſe which ſometimes affects black cattle, though much more in England than Scotland, and the farther into Scotland the leſs; it commonly goes under the name of *the diſeaſe among the horned cattle*, as being the moſt remarkably deſtructive of any. It is like a plague, and only happens at periods conſiderably diſtant one from another. Unwholeſome waters, peſtilential air, or improper food, ſeem to be its origin. This appears to be the ſame diſeaſe with the *murrain*, one of the plagues of Egypt; with the *peſtilence* in the beginning of the Iliad; and the *murrain* deſcribed at great length in the end

end of Virgil's third Georgic. It is worthy obſervation, that it came after the plague upon the waters in the firſt of theſe caſes, and is mentioned in the other two as proceeding from peſtilential air. In the firſt, it is mentioned as being followed with boils; and, in the laſt, as cauſing them. I was deſpairing of finding any thing that could be of any ſervice for this diſeaſe, when, among the papers belonging to one of the ſouth country boroughs, I found the memorial added in the Appendix, which points out very clearly the moſt proper method of preventing the diſorder; and, a few days after, I happened on an extract from a treatiſe on the diſeaſes of black cattle, of what related to this diſorder, in a Dumfries magazine, alſo given in the Appendix; which laſt does not ſpeak of the diſorder as being always incurable or fatal.

Black cattle are, however, in general, exceedingly healthy animals, more ſo than even ſheep are.

The

The great market in the ſouth of Scotland for cattle going to England is Dumfries, every Wedneſday almoſt all the year round; of which Hampton-Wedneſday, about Michaelmas, is one of the moſt conſiderable;—Falkirk-Tryſt for Highland beaſts, &c. and Martinmas for young beaſts to winter, and beef-cows, in a variety of places.

APPEN-

APPENDIX.

No. I.

MEMORIAL *concerning the contagious Diſeaſe affecting the Horned Cattle* *, *for preventing the infection, by* DR CULLEN.

AS this diſeaſe has now made ſome appearance about Portſoy, and I have had the honour of being deſired by ſome of thoſe who have more eſpecially the care of the policy of this country, to ſuggeſt what I thought might be uſeful on this occaſion, the following conſiderations and propoſals are humbly ſubmitted to them and to the Public.

For

* This is dated in the year 1770, or thereabouts.

For preventing the ſpreading of this infectious diſeaſe, it is, in the firſt place, neceſſary to prevent all communication between the infected and ſound cattle; and, for that purpoſe, the orders of the Privy Council, by their act of the 22d of March 1747, ſeem to be very well contrived, and, if properly executed, will certainly be effectual.

But, though that communication ſhould be entirely prevented, it may not be ſufficient to prevent the ſpreading of the diſeaſe, as it is very certain that the infection may be carried from the diſeaſed to the ſound cattle by perſons to whoſe clothes the infection adheres.

This alſo the Privy Council have had in view, when they order, "That no perſon "who ſhall attend any infected cattle ſhall "go near the ſound ones in the ſame "clothes."

The precaution is extremely neceſſary; and, to prevent ſtill more effectually the

ſpreading

ſpreading of the diſeaſe, the following conſiderations are ſuggeſted.

It ſeems to be of the utmoſt conſequence for perſons concerned in this matter to know,

That an inconceivably ſmall quantity of infectious matter is capable of communicating the diſeaſe:

That the infection is applied to every kind of matter that is brought near to the diſeaſed cattle, and particularly to the clothes which men commonly wear:

That this infection, thus applied to clothes, &c. adheres to them very tenaciouſly for a long time; and, ſo adhering to them, may be carried to a very great diſtance, in a condition to communicate the diſeaſe:

That this infection is not only carried in the clothes and other matters firſt infected by the effluvia of the diſeaſed beaſt; but it is alſo probable, that it may paſs from the matters firſt infected, to others which come

in

in contact with them, as from the clothes of one perſon to thoſe of another; and thus it is, that the diſeaſe is often ſpread in an undiſcernable and ſeemingly unaccountable manner.

All theſe facts are very well known to phyſicians from the hiſtory of the plague, and other contagious diſeaſes among men; and there can be no doubt of the ſame taking place alſo in the contagions among brutes. But, from the laſt mentioned fact, it will appear, that it is not only neceſſary the perſons who have attended the infected ſhould not, in the ſame clothes, go near the ſound cattle; but alſo, that thoſe perſons ſhould not, in the ſame clothes, go near to other perſons who may ſoon after have occaſion to go near to ſound cattle.

When it is conſidered, that, as ſoon as the diſeaſe has prevailed to any degree, a great number of perſons muſt be concerned in attending the infected cattle, and theſe, though they do not go near to the

ſound

ſound cattle, muſt have a communication with many perſons who may ſoon have occaſion to go near the ſame, it will appear, that the diſeaſe may ſoon be widely ſpread, and that it muſt be a difficult matter to prevent its ſpreading in this way. It will, indeed, require a very ſcrupulous attention; but it is hoped it may be done by the following meaſures.

When any town, village, or diſtrict, in which there are a conſiderable number of horned cattle, happens to be viſited by this diſeaſe, the firſt care ought to be, that as few perſons as poſſible be concerned in attending the infected cattle; and, for this purpoſe, a ſufficient number of men ſhould be ſet apart for performing the whole buſineſs neceſſary with regard to the diſeaſed cattle, as the killing them, the ſlaſhing their hides, the burying them, the burning the infected hay, ſtraw, litter, or other infected matters, the burying the dung, and purifying the infected cow-houſes.

It will be convenient to chooſe for this purpoſe batchelors, or men without families, and, by every means, to take care that they have as little communication as poſſible with any other perſons.

It will be particularly proper, that theſe men have a complete ſet of apparel in which they may perform every part of the buſineſs above mentioned; and they are to be ſtrictly charged, that, while they are clothed in any part of this apparel, they avoid all near communication, and more eſpecially contact with any perſon, or with any thing that may afterwards be carried near to ſound cattle, or to which theſe may come near.

If it ſhall be found that the perſons employed as above, muſt unavoidably have ſome communication with other perſons, it will be neceſſary that they be provided with other apparel to be employed in ſuch communication; and, in that caſe, they are to take care that no contact be admitted

ted between the two ſets of apparel thus deſigned for different purpoſes.

When theſe men are thus eſtabliſhed, care muſt be taken that no perſons, upon any pretence whatever, be allowed to go near the infected cattle, to enter the houſes where they are or have lately been, or to attend the performance of any of the buſineſs neceſſary with regard to them.

If it ſhall happen that any perſon, before knowing of a beaſt's being infected, ſhall have had ſome communication with ſuch beaſt, care ſhould be taken, as ſoon as this is known, that the perſon ſhould put off their whole apparel, to be ſubjected immediately to a proper purification.

As it has been found that dogs may carry this infection, care muſt be taken that theſe animals be kept from coming near the infected, and much more, if they do ſo, that they be kept from going near the ſound cattle.

When an infected beaſt is to be carried to any diſtance to be killed and buried, care ſhould be taken to muffle it, ſo that neither its breath be blown, nor its ſlaver fall upon the ground; and if, by the way, any part of its ordure fall upon the ground, it ought to be immediately buried deep: And all theſe precautions are neceſſary to prevent men or animals coming to theſe places from contracting the infection.

When an infected beaſt is ſo weakened by the diſeaſe that it cannot be led out, or that it has died in the cow-houſe, and, in either caſe, is to be carried out, this ought to be done upon a cloſe-bodied hurdle, or ſledge, that may prevent any thing being dropt from the animal by the way; and, for no part of the way ſhould the animal be dragged upon the ground, but kept upon the carriage till it is tumbled into the hole in which it is to be buried.

In killing theſe infected cattle, and ſlaſhing their hides, as the law directs, if any blood

blood or other humours are ſpilt upon the ground, care ought to be taken to dig up ſuch ground, and throw it firſt into the burying pit.

Whatever utenſils, inſtrument, or carriages of any kind are employed in any operation about the infected cattle, the ſame ſhould be ſet apart for that purpoſe, and employed for no other, till they have been long expoſed to the air, or ſuffered other purification.

The law has ordered all hay, ſtraw, or litter, that has been near to the infected cattle to be removed and burnt; but, in order to this, it may be proper to obſerve, that there is ſome reaſon to ſuſpect, that, with the ſmoke of theſe infected matters, the infection may be carried to ſome diſtance; and it will therefore be proper that theſe infected matters be always burnt to the leeward of any adjoining town or village; and, as it may be proper as much as poſſible to prevent the ſpreading of ſuch

ſmoke upon the adjoining fields, it will be proper to burn every thing under a chimney, that may either ſecure the inflammation of the whole matter, or carry the ſmoke to ſome height before it is blown by the wind.

If the ſeveral meaſures here propoſed for preventing the ſpreading an infection ſhall be ſuppoſed to require more pains and attention than can be commonly beſtowed by the perſons concerned, and that the meaſures ſo lately employed at Portſoy ſhall be deemed more certainly effectual, I would have no objection to this choice; but muſt obſerve, that, unleſs ſome precautions are taken at the ſame time againſt the ſpreading of the infection by perſons, dogs, &c. the other meaſure of killing, &c. can be only much expence and labour loſt.

Whatever may be thought proper in the caſe of the diſeaſe already appearing in any place, it is expected that all perſons poſſeſſed of a ſtock of cattle already tolerably

ſeparated

ſeparated from their neighbours, may from the above learn what is neceſſary to preſerve their cattle from this diſeaſe: And, to illuſtrate this matter, we ſhall here tranſcribe two paſſages from Lanciſi, firſt phyſician to Pope Clement XI. who publiſhed a treatiſe on this diſeaſe when it had come into the Pope's territories in 1711.

In one place he has theſe words: "It "is particularly to be obſerved, that the "matter of this contagion is not commu-"nicated only by the infected coming "near the ſound cattle, but that it is more "frequently carried from the one to the "other by perſons who have attended the "diſeaſed cattle; by dogs alſo, and other "animals who are covered with hair, "wool, or feathers, when theſe have either "touched the infected beaſts, or remained "long among them."

In another place he has the following paſſage: "As we have now ſhown, that there "is no certain remedy for this peſtilential

"diſeaſe,

" diſeaſe, when it has once attacked the
" horned cattle, it is, in the next place,
" neceſſary for us to ſhow what is the on-
" ly certain means of preventing it. This
" is the taking the utmoſt pains to keep
" the ſound cattle from all communication
" with the infected, or with any thing that
" may carry the ſame infection. Since
" the preſent contagion has prevailed, we
" have ſeveral examples of perſons who
" by great pains, taking care to guard a-
" gainſt every acceſs of contagion, have
" preſerved their whole ſtock of cattle free
" from the diſeaſe. In the Compagna of
" Rome, while in every other field or cow-
" houſe the whole cattle were deſtroyed,
" there were two herds that entirely eſca-
" ped ; one was that of Prince Pamphili,
" at his villa without the gate of St Pan-
" cras, the other that of Prince Borgheſe,
" at his farm of St Nicholas ; and both
" of theſe were preſerved by a moſt ſtrict
" watch, in refuſing acceſs to every perſon

" or

" or animal, and to every kind of goods,
" with regard to which the leaſt ſuſpicion
" of contagion might be entertained."

(Signed) WILLIAM CULLEN.

No. II.

On the Cauſes, Symptoms, and Cure of the Diſeaſe among the Horned Cattle, by JOHN SWAINE.

MR SWAINE, after mentioning how frequent it has been in all ages and nations, goes on thus:

Of the Cauſes of this Diſtemper.

There are ſo many cauſes by which this diſtemper is produced, that it is in a manner

ner impoſſible to enumerate them all, but we ſhall take notice of ſuch as are moſt commonly known.

Originally it would ſeem probable that the ſame cauſe which produces the plague likewiſe gives birth to this infection; and this will appear the more probable, if we conſider that the diſtemper among the horned cattle firſt took its riſe in thoſe countries moſt ſubject to the plague.

In Egypt, the putrid effluvia of the Nile, after a more than ordinary inundation, conduces in a great meaſure towards ſpreading this diſtemper among the horned cattle, eſpecially during the heats in autumn. Indeed, it has been long known, that putrid water will at all times ſpread diſorders among cattle; and therefore it is neceſſary that the perſon who has the care of them ſhould not ſuffer them to drink any thing but what is clear and wholeſome.

(He next mentions the neceſſity of complying with the orders of the Privy Coun-

cil

cil againſt importing hides from thoſe countries where it was ſuppoſed the diſtemper took its riſe, and inſiſts upon the baſeneſs of a contrary conduct.)

Another of the cauſes of this diſtemper is peſtilential air, ariſing from morbid or corrupted bodies; and therefore it is the duty of the farmer to take care that his cattle never come near to places where ſuch noxious objects are to be found.

It may likewiſe proceed from want of proper nouriſhment; but ſurely every farmer who has the leaſt regard for his own intereſt, will not neglect ſuch an eſſential part of his duty.

Of the Symptoms of this Diſtemper.

The firſt ſymptoms are, the want of appetite; a ſhaking of the head; a hanging down of the ears; a dullneſs in the eyes; a deafneſs; and a ſort of wildneſs in going from one place to another, without any

any apparent reaſon. All this is accompanied with ſuch uneaſy pains in the body, that the creature ſeems to be entirely diſordered; and theſe ſymptoms moſt commonly increaſe till the fourth day, when a change one way or another muſt take place.

The next Symptoms are the following; and they ought to be attended to, becauſe they follow thoſe which have been already mentioned.

The beaſt appears to be borne down by the effects of a ſevere fever during three days; he is ſtupid; and there is always a great running of his eyes, with a fatal loſs of appetite, attended with a dry cough. This diſtemper, with all the ſymptoms already mentioned, ſeldom continues above three days; and if, at the end of that time, it begins to ſubſide, then there is a ſure and convincing proof that it aroſe from noxious

noxious qualities in the air. If it is a milk-cow, her milk will immediately dry up; and, during the firſt three days of her diſtemper, ſhe will purge ſo violently, that all her ſtrength will appear to be exhauſted. On the fourth day the purging will dry up; but then the cow will be ſo weak, that ſhe will not be able to give milk; and ſhe will groan ſo much, that every perſon who ſees her muſt take notice of the nature of her diſorder. They have a ſtrong and continual inclination to lying down; and, upon the whole, appear ſo inactive, that they are apparently not fit for any thing whatever.

This diſtemper, however, operates differently upon different conſtitutions in the brute creation, as will appear evident to any perſon who has the care of cattle committed to him. Cows are thoſe who are moſt commonly, in the firſt inſtance, afflicted with the effects of this diſtemper; but it generally, conſiſtent with the nature

of all contagious diſtempers, ſpreads itſelf among the reſt of the ſpecies.

It is extremely remarkable, that, if a cow with calf ſhould happen to deliver her pregnancy before the ordinary time of birth, then, if ſhe is properly attended, ſhe will recover; but it muſt be on this ſuppoſition, that the calf is dead, and that no other has been permitted to ſuck her.

It is remarkable of this diſtemper, that it rages in proportion to the nature of the ſeaſons. In ſummer and autumn it rages moſt, but is leſs violent in winter and ſpring, which may ſerve to ſhow that heat is one of the cauſes by which it is produced. It has likewiſe been obſerved, that it generally proves moſt fatal at the height of the moon; ſo that it muſt be to all intents and purpoſes epidemical, and of a peſtilential nature.

There is a ſtated time when the ſymptoms of this diſtemper ariſe to ſuch a degree of ſtrength as to point out that it will

prove

prove mortal, or that the beaſt is out of danger.

The ſeventh day is the critical period; and if, at that time, eruptions begin to appear on the ſkin, running along the backbone, from the ſhoulder down to the tail, and ſo ripe as to diſcharge the putrid matter, then it is a very favourable circumſtance, and, in moſt caſes, ſerves to ſhow that the beaſt is out of danger. It is neceſſary, at the ſame time, to obſerve, that the farmer ſhould take notice of the dung; for, if it is firm and ſolid, it will indicate the beaſt in a fair way of recovery; but, if it continues to be thin and inflamed, then there is reaſon to expect the utmoſt danger.

If the noſe of the beaſt is ſore, and he begins to eat with greater avidity than during the five other days, and the watering of the eyes begins to decreaſe, then it is a favourable ſymptom, and there is no danger to be expected. Upon the whole, if

theſe ſymptoms are properly attended to, the lives of many cattle may be preſerved, and the intereſts of farmers, in general, promoted; for it is care in attending upon ſuch things that alone can inſure ſucceſs, and that is the duty of every one who would wiſh to promote his intereſt in a proper manner.

ESSAY

ESSAY

ON THE

Proportion and degree in which Incloſures are proper and expedient, in Highland Farms, under a breeding ſtock:

WITH

The kinds of Incloſure moſt adviſeable, and the beſt and quickeſt method of executing them.

O fortunati, quorum jam moenia ſurgunt.

VIRG. AEN. lib. I.

ON INCLOSURES.

THE earlieſt mention I find of incloſing is the garden of Alcinous, in the Odyſſey:

" Cloſe to the gates a ſpacious garden lies,
" From ſtorms *defended* and inclement ſkies;
" Four acres was th' allotted ſpace of ground,
" *Fenc'd with a green incloſure all around.*

Odyſſey, b. 7. l. 142.

We find alſo a *garden incloſed* in the *Song of Solomon* *. The firſt ſtone-wall after the walls of houſes and cities, is the Grecian fortification at the ſiege of Troy, conſiſting of a wall and ditch †. It is believed ſtone-dikes for incloſures are rather a modren

* Chap. 4. v. 12.

† Iliad, books 7. & 12.

dern invention in Scotland than otherwiſe, as the houſes, about the time of the Roman invaſion, were moſtly of wood there. We have ſome reaſon to think that turf-dikes were moſtly uſed till very lately; and that, in general, the ſtone-dikes built more than three or four ſcore years ago were exceedingly ſmall, ſo as to prove a very inſufficient fence on many occaſions. Sir William Blackſtone ſeems to date the commencement of incloſing in England from the introduction of huſbandry among the Saxons *. Dr Henry ſeems rather to place it after the Norman conqueſt, and quotes Ingulphus to ſhow that incloſing, draining, and embanking, were all practiſed ſoon after this period †. We are pretty certain that *deer-parks* or chaſes were granted and uſed ſoon after the charter of the foreſts of King John. Sir William Blackſtone ſpeaks of their being incloſed with a wall or pailing

* Vol. 2. p. 414. 8vo edit.

† Vol. 6. p. 173. 8vo edit.

ing. Stone-walls or dikes ſeem to have been uſed a conſiderable time ago for incloſing gardens in Scotland. Deer-parks or foreſts appear alſo to be of a pretty old date in Scotland. Theſe uſed for *deer-parks* ſeem, from ſome yet ſtanding, to have been very ſufficient. There are many veſtiges of ſtone-dikes in the ſouth of Scotland, which are ſaid to have been places of ſhelter for their cattle out of ſight of the common road, to prevent the depredations of the northern counties of England whilſt a ſeparate kingdom. That turf-dikes were uſed more commonly for the ordinary purpoſes of incloſing, may be partly inferred from this, that, if they had been formerly as little uſed as now, it is probable the rural ſervitude of feal and divot had never been heard of, as it was not known among the Romans. The fence of bruſhwood interwoven or wattled like a baſket, was poſſibly alſo uſed pretty early, as this country was more overſpread with woods formerly

merly than at preſent; as baſket-work was uſed in this country, for a variety of purpoſes, more than in any other place; and they were even an article of export about the time the Romans were in this kingdom *. It is probable, that, on the introduction of architecture gardening followed; and, if theſe gardens were not walled in with ſtones, that the thanes or barons next incloſed theſe chaſes or deer-parks with a wall or pailing, which was the more neceſſary, as, if they quarrelled about them, they could be the more eaſily defended. The battle of Chevy Chace ſeems to have originated from ſome matter of this kind. In ſupport alſo of this, of uſing ſtone-dikes for military purpoſes, we find, in the hiſtory of Sir William Wallace,

"A dike of ſtones they had quite round them made,
"And proudly there with great rampaging rade †."

In

* Dr Henry, vol. 1. b. 1. c. 6. p. 226. 8vo edit.

† Book 3. chap. 1.

In courſe of time, theſe incloſures, uſed for the purpoſes of war or hunting, were extended to incloſing meadows, corn-lands, and other ordinary purpoſes.

It will occur, that, for a highland farm under a breeding ſtock of black cattle, a calf-ward, of a part of the beſt of the farm, is neceſſary, as proper feeding is of the greateſt advantage at this period, and calves, when firſt let out, are very apt to run away on getting a fright, or being unſkillfully guided. This incloſure ſhould be near to the houſe, for convenience, at milking the cows.

Another diviſion will occur, between the low and high grounds. This need not be quite ſo low as the valleys, as the cows, being herded, though under it, are kept from

from the meadow and corn lands till the crop is taken off.

If the meadow and corn land is in the middle of the farm, it will fall to be fenced all round.

Unleſs there is a moſs near the march on the hilly part of the farm, with a difficult kind of paſſage in and out for a night-lare to the yeld nolt, it might poſſibly be adviſeable to have an incloſure in that part of the farm, to prevent their coming too far down, to hurt their winter paſture.

Another ſmall incloſure like the calf-ward would frequently be convenient beſide it, in caſe any accident happened any of the cattle, or in a bad night in the harveſt, before they were put in at nights.

It would be expenſive to make march-dikes between every farm in a country not highly improven, or the lands very valuable, otherwiſe this would be another place for a fence or dike. The others depend entirely on the ſituation of the farm.

Poſſibly

Poſſibly a ſtone-dike of ſix or ſeven quarters of a yard high is the beſt, built like a dry-wall to the middle, then a row of large ſtones ſeveral inches longer than the breadth of the dike, called band-ſtones, and afterwards ſmaller ones gradually to the top.

In lands of great value, they are ſometimes made, particularly the diviſion-dikes between the different parts of the farm, at every three yards diſtance, or thereby, with very large ſtones to the top; that is, two very large ſtones ſet up, and one on the top of them, which comes within a ſingle ſtone of the top of the dike, and locked along the top, by the uppermoſt ſtones all along being ſhaped like bricks, and wedged in one with another; by which means not above two or three yards are in danger of falling together, and the top is alſo very much ſecured from being by any means tumbled down. Sometimes there are more than two at the bottom;

at other times one or two at the bottom, and a greater number of large ones above, which, communicating with the band-ſtones, form a kind of arch over the ſmaller ſtones between theſe ſets of large ſtones, which anſwer the ſame purpoſes of the former method, in preventing any conſiderable quantity falling together. This kind, it is believed, was firſt brought into uſe by Mr M'Adam of Craigengillan.

The fear of the common kind of ſtone-dike falling on the cattle makes it a good fence, as they are on that account afraid of attempting it.

Abundance of people, in the ſouth country, may be got by reaſonable encouragement to build the common dike firſt above mentioned. The Ayrſhire people are moſt uſed with the other.

One perſon or two raiſes and leads the ſtones, in two lines, on each ſide of the ſituation of the intended dike, and then as many build. The expence is from 2 s. to

5 s.

5 s. Sterling per rood, according to the convenience of getting ſtones for the dike, and the goodneſs it is wanted.

When one of the proprietors wiſhes to have the march-dike built, the other can be compelled, by an action at law, to concur in the expence, or to reimburſe the perſon who has laid it out, of his proportion, if previouſly required to concur *.

In ſoft ground, for inſtance a moſs in low ground betwixt the high ground and the meadow, or on the march, where a dike will not ſtand made of ſtone, one of turf is made, with a ditch on the ſide moſt likely to be attempted. Theſe ditches have been, in practice, generally made very deep. It is imagined, if the ground were level, it would be better to make them only ſo deep that water would run along them, poſſibly about a foot deep and wide, that they might fright cattle from attempting them, and, at the ſame time, be

* Act Cha. II. parl. 1. ſeſſ. 1. c. 41.

be attended with no danger if they got into them.

This is ſtill cheaper than ſtone-dike.

If any part of the ground is ſo ſoft as not even to admit of this, where the fence is intended, or if it is even water that does not ſerve as a fence, ſtakes may be driven in, and wattled with bruſhwood, to fill up any gaps thus occaſioned in the fence.

This is done at almoſt no expence, if the materials are at no great diſtance.

The great advantage of ſtone-dikes, with thoſe of turf or bruſhwood, where the ground will not carry them of ſtone, is the expedition with which they can be reared.

FINIS.

ERRATA.

Page 14. line 5. for *Sheſuck* read *Sheſack*.
18. 4. from the bottom for *preponere* read *deponere*.
23. 8. for *rural* read *rival*.
32. 3. from the bottom for *of haggy* read *ſhaggy*.
34. 1. for *Syprian* read *Tyrian*.
35. 9. for *ſead* read *ſeed*.
42. 3. from the bottom for *bread* read *breed*.
47. 5. ——————— for *was* read *were*.
49. 8. for *not* read *uſed*.
54. 11. for *with* read *the*.
56. 4. for Bov read Bovv.
145. 2. for *the* read *though*.
146. note line 3 from the bottom for *ſcarceſt* read *coarſeſt*.
170. 5. for *march* read *mark*.
243. 5. for *Begoar* read *Bezoar*.

ERRATA.

Page 19. line laſt for *arator* read *aratorem*.
21. 6. for *by* read *to*.
41. note line 3 for *ſoregoe* read *ſoregoes*.

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